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AN INVESTIGATION OF GUILT, LOSS AND THE
SEPARATION-INDIVIDUATION PROCESS
IN DEPRESSION

by

Richard B. Dauber

A Dissertation Submitted to the Faculty of the Graduate School of
Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

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INTRODUCTION

Since the time Abraham published the first psychoanalytic investigation of depression in 1911, there have been numerous theories proposed to account for the psychodynamics of depressive states. Unfortunately, as several authors have acknowledged (e.g., Mendelsohn, 1974, 1980), many of these formulations dealt with depression as a unitary phenomenon, and thus, they advocated a single theoretical model to account for a variety of affective states.

Despite the variety of opinion in the literature on depression, several basic themes are recurrent. Two themes that appear to be fundamental in the psychodynamics of depression are fear of object loss and guilt over autonomous gratification. It is proposed in this research that a developmental approach, based on ego psychology, may be the most fruitful framework for studying depression. Specifically, depression is viewed as being related to a failure in the separation-individuation process (Mahler, 1979) which results in impaired object relations and object representations.

Following Blatt (1974), a distinction is made between two types of depression based upon developmental considerations. The first type of depression is termed "anaclitic" and is characterized by fears of object loss and helplessness. Object relations are at the symbiotic and early subphases of the separation-individuation process. "Introjective" depression is more developmentally advanced

and is characterized by themes of guilt, worthlessness, and fears of losing the love of the object.

This research reviews the literature on loss, guilt, and the separation-individuation process in depression and then experimentally explores their relevance to depressive affect. This study makes use of the "subliminal psychodynamic activation" method introduced by Silverman (summarized in Silverman, 1976) to investigate the effects of unconscious fantasies concerning fears of object loss, guilt over autonomous strivings, and successful separation-individuation on depressed subjects. This method involves tachistoscopic presentation of specific verbal and pictorial stimuli at a subliminal level and a comparison of their effects with those of a neutral stimulus.

REVIEW OF THE RELATED LITERATURE

Loss and Depression

Freud (1917) in Mourning and Melancholia was the first psychoanalytic theorist to emphasize loss in depression. He noted many similarities between melancholia, or depression, and the normal mourning process. Thus, Freud assumed that depressives are predisposed to a pathological response to loss. As opposed to normal mourning, however, in melancholia the individual is vague about the nature of his loss. Even when there is a clear external object that has been lost, the melancholic is not clear "what it is he has lost in them." Freud hypothesized, therefore, that the loss is intrapsychic and unconscious. The loss need not be real, but could be imagined. Furthermore, the loss need not even be a person, but could be an ideal, function, or a material object.

Taking note of the melancholic's self-abasement and self-reproach, Freud hypothesized that as a child, the individual vulnerable to depression, established an intense narcissistic object relationship that resulted in feelings of rejection and disappointment. Following this, there occurs a withdrawal of libidinal interest in the loved person and an introjection of the love object by the ego. The ambivalence and rage that would have been directed toward the lost object is now heaped upon the depressive's self. Later losses reactivate the primal loss and causes the depressive to again express

rage at the original disappointing object, which has now been incorporated in his own ego, resulting in depression.

Rado (1928) also stressed the significance of loss in depression. The depressively prone individual desperately needs the love object's constant love and nurturance, and cannot tolerate frustration of this need. If a loss occurs, the individual becomes depressed. Rado viewed depression as an unconscious expiation process, which aims at restoring the lost love object. If the depressive cannot win the lost object back, then an intrapsychic struggle ensues. Rado postulated a splitting of the lost object into good and bad objects. The good object, by whom the child wanted to be loved, is incorporated into the superego, and punishes the bad, frustrating object, which was internalized by the ego. The ego now seeks love and forgiveness from an internalized love object. The manifestations of depression are the ego's plea to the superego for atonement through self-punishment and self-denial.

Bowlby (1969, 1973, 1980), perhaps more than any other contemporary theorist, emphasized the prominence of separation and loss in depression. He made detailed investigations of young children who were separated from their mothers, and examined the mourning process that resulted from the loss of a love-object. Bowlby emphasized the child's tie to his mother, and the severe anxiety that ensues following separation. This separation anxiety underlies what Bowlby called the phase of protest, the first of three phases in the mourning process. The function of the protest phase is an attempt to prevent

a separation or to effect a reunion with the mother, and at times is quite successful in its aims. Thus, Bowlby argued that the loss of an object almost inevitably produces an attempt to regain it. Accompanying this effort are anger and reproaches toward those that the child feels responsible for the loss, including mother. As Bowlby (1961) stated that "the lost object is almost always sensed as being in some degree responsible also. This means that anger directed against the lost loved object is practically inevitable and universal."

The phase of protest is followed by a phase of despair, which is characterized by increasing hopelessness, depression, longing for the lost object, and disorganization. This phase is followed by the phase of detachment, marked by a withdrawal of interest in the mother, and an absence of attachment behavior should she return.

Bowlby (1963, 1980) argued that depression is the result of pathological mourning. If the child has sustained repeated losses or rejections, and consequently has experienced prolonged or displaced anger, then he may display intense ambivalence in his future relationships. It is these individuals who, according to Bowlby, respond to loss in a pathological way.

Several authors writing from a behavioral perspective also presumed that a significant loss is an antecedent of depression. Costello (1972) speculated on how the loss of a significant person (reinforcer) can lessen the attractiveness of various reinforcers.

This, in turn, leads to a loss of interest in the environment, and subsequently depression. Likewise, Lazarus (1972) believed that a significant loss usually precedes reactive depression. Following this loss is a "yearning" for its restoration.

There have been numerous studies that have examined childhood loss as a precipitant of adult depression. Most of these studies reported that there was a significantly higher incidence of a loss of a parent during childhood among depressed patients than nondepressed patients (Beck, 1967; Beck, Sethi, & Tuthill, 1963; Brown, 1961; Dennehy, 1966; Hill & Price, 1967). Other investigators, however, found no significant correlation between depression and childhood parental losses (Brill & Liston, 1966; Crook & Raskin, 1975; Gregory, 1966; Hopkinson & Reed, 1966; Munro, 1966). Gay and Tonge (1967) did report a correlation between reactive depression and parental deaths. They felt that a childhood bereavement might affect the mourning process in such a way as to predispose an individual to later depression. Likewise, Brown, Harris, and Copeland (1977) argued that early maternal loss most likely does not cause depression directly, but acts as a "vulnerability factor" by increasing the likelihood of depression following a stressful event.

Following his investigation, Paykel (1973) also concluded that many depressions are preceded by stressful situations that are usually related to separation from or loss of a significant person. Paykel argues, however, that separations are not specific to depression, but often are antecedents to other psychological dis-

turbances as well. Furthermore, most people who experience a significant loss do not become clinically depressed. Apparently, there are other personality factors that predispose an individual to react to loss in a pathological way. Moreover, an "actual" loss of a significant other in real-life may not be the major precipitant of depression.

After a review of the studies conducted during the past two decades concerning the relationship between parental death and depression, Crook and Eliot (1980) concluded that "parental death during childhood has not been established as a factor of etiologic significance in adult depression." They argued that the studies demonstrating such a relationship have been methodologically flawed. It seems then, that the "loss" experienced need not be a parental death, but may entail other losses such as parental separation or unavailability as well as "intrapsychic losses."

Blanck and Blanck (1974) also wrote about the importance of loss in the development of depression. They wrote that an early object loss predisposes an individual to depression because the child is at "a stage in development when the ego is not yet capable of mourning and of resolving ambivalence and narcissistic injury." They agreed with those authors who postulated that the loss need not be real, but may be in internalized one whereby the object representation is destroyed by aggressive cathexes.

Mahler (1966) also made this point. She believed that the

object loss need not be real object loss, but most often is an "intrapsychic loss" of an object. She wrote:

Real object loss--that is, loss of a love object in reality--does not occur frequently enough to account for the widespread proclivity, especially on the part of women, toward depressive moods or depressive illness. It must be a loss in fantasy--that is to say, intrapsychic conflict of a particular type . . . which is the cause for the occurrence of depression (p. 64).

Sander and Joffe (1965) argued about the centrality of loss in depression. They saw depression as an affect that is experienced when the individual believes he has lost something or someone that is necessary to his state of well-being. Furthermore, he believes that he is unable to rectify this situation, and undo the loss. Sandler and Joffe argued, however, that what is lost is not the love object per se, but rather a feeling of psychological integrity. They wrote: "When a love-object is lost, what is really lost, we believe is the state of well-being implicit, both psychologically and biologically, in the relationship with the object" (p. 91).

Depression and Guilt Over Autonomous Strivings

Several writers have stressed the importance of both guilt and dependence in the development and manifestations of depression (Arieti, 1962; Bemporad, 1971; Cohen, Baker, Cohen, Fromm-Reichmann, & Weigart, 1954; Slipp, 1976; Smith, 1971). According to these theorists the family background of depressives fosters a great sensitivity to feelings of guilt as well as a failure in achieving autonomy.

Slipp (1976), after studying families of depressives, noted

that the system of interaction within each family prevented individuation. The child had severe difficulties in achieving any autonomous identity apart from the family system. Additionally, Slipp found that the family members each felt omnipotent and overly responsible for the other, but concurrently, helpless and controlled by others. Extending the theories of Klein (1950), Slipp argued that to separate from this symbiotic relationship and be autonomous is experienced by the child as losing control over hostile feelings. This consequently elicits fear of both destroying the parents as well as being destroyed. The family of the depressive is thus viewed as a symbiotic one that reinforces these omnipotent fantasies.

Bemporad (1971) also stressed the importance of omnipotent fantasies in depressives. He argued that "the theme of magically destroying the dominant other by acts of assertion is not uncommon in depressives" (p. 234). According to this viewpoint, the depressed individual becomes dependent upon a "dominant other," an internalized, idealized parental representation, and is unable to obtain any pleasure from independent achievement. Depressives fear expressing their own autonomous wishes and feel guilty over the possibility of asserting themselves.

In terms of etiology, Bemporad stated that the mother of the pre-depressive is often depressed herself and relies heavily on guilt to enforce demands for conformity to her needs. As a child, the depressive, out of guilt, accepts the blame for his mother's unhappiness and thus feels obligated to make her happy and content.

The parents of the depressive do not acknowledge their child as being a separate autonomous individual, rather, they view the child as an agent for their own needs. In this manner, the depressive learns to experience guilt over his own independent strivings. Autonomous satisfaction is denied in return for the possibility of nurturance by the dominant other. To assert one's desires is risking anxiety, guilt, and loss of love. In a similar manner, Cohen et al. (1954) wrote that the mother of the depressive enjoys the dependency of her children. Since, the child had not learned how to function as a separate individual, autonomy is associated with anxiety, withdrawal of love, abandonment, and not surviving alone. This viewpoint is consistent with the theory of Sampson (1976) and his co-workers who stressed the importance of unconscious guilt in human relationships. They argued that the depressive experiences unconscious guilt about wanting to become independent of early objects, especially the mother, and exercising autonomy.

Slipp (1976) argued that the parents of the depressive maintain their self-esteem by keeping their child dependent upon them. Therefore, although the child may be given an overt message to succeed, he is also given a simultaneous, covert message to fail. If the child becomes autonomous, they lose control over him, and thus, is a threat to their self-esteem.

Sandler and Joffe (1965) also underscored the importance of autonomy and individuation, as well as the parents role in preventing successful separation-individuation in depressed children. The

course of normal development necessarily entails the loss of infantile aims and previous states of satisfaction. Individuation involves increasing independence and autonomy from parents. These authors argue that the child who fails to individuate, will become prone to depression. The rule of the parents in this struggle is described by Sandler and Joffe:

It not infrequently happens that the child's parents are in unconscious opposition to progressive individuation, and the influence of the parents may be perpetuated in their successor, the superego (p. 94).

Guilt, then, becomes the motivating force that precludes the attainment of autonomy.

In describing the mother's role in separation-individuation failure and subsequent borderline pathology, Masterson (1976) emphasized the patient's tremendous fears of abandonment. These fears develop out of the mother's inability to handle the child's emerging autonomy, and therefore, she discourages individuation-separation. Thus, there is a constant fear of the loss of the emotional supplies the child feels are necessary for survival. Guilt plays an important role in the dynamics of this failure in achieving separation-individuation. As Masterson stated:

Since the mother greeted the expression of his self-assertion and his wish to separate and individuate with disapproval and withdrawal, the patient begins to feel guilty about the whole part of himself which seeks separation and individuation. . . . Consequently, to avoid guilt feelings he suppresses moves in this direction . . . and thereby sabotages . . . his own autonomy (p. 41).

Autonomy thus brings with it, feelings of guilt and the fear of losing his mother's love.

Smith (1971) pointed to the depressive's helplessness and states that it may serve a defensive function. Often depressives may deny aspects of competence because they are feeling anxious or guilt-ridden about them.

In summary, it appears that guilt over strivings toward autonomy may play an important role in depression. The depressive appears to be unable to separate from a family that fosters dependency upon them. Separation from the family may be interpreted by the depressive as an aggressive act, thus leading to feelings of guilt. Independence and feelings of competence often are denied because they elicit overwhelming guilt, anxiety, and depression.

Separation-Individuation and Depression

The work of Mahler (1966, 1979) underlined the fundamental importance of the separation-individuation process in the development of depression. Mahler (1966) argued that basic mood, including depressive affect is established in the separation-individuation process. During this process, the infant must relinquish his fantasy of symbiotic omnipotence if he is to achieve the developmental steps of differentiation and individuation. Thus, an intrapsychic "loss" occurs; a loss of the previous state of "oneness" with the mother. Mahler believed that it is this feeling of loss, at a stage in development when the ego is not yet capable of resolving ambivalence

and narcissistic injury, that causes depressive affect.

Mahler (1966) theorized that as the separation-individuation process continues, the child gradually moves out of the symbiotic phase. This is followed by a gradual collapse in the belief of his omnipotence. At the time of the rapprochement subphase, if the unattuned mother fails to respond to the needs of the child, the child becomes uncertain of the emotional availability of the parents. This results in a hostile-dependent ambivalence on the part of the infant toward the mother. These aggressive ambivalent fantasies produce a fear of annihilating the love object, and result in the use of splitting as a defense. The aggression is consequently turned against the self, resulting in helplessness, depleted self-esteem, and depression. Thus, from Mahler's point of view, it is the initial loss of the symbiotic state followed by the fear of magically destroying the love object in the process of separation-individuation that appears to be responsible for the individual's vulnerability to depression. Mahler (1972) wrote that "inherent in every new step of independent functioning is a minimal threat of object loss." She argued however, that with adequate love and acceptance, the infant will gradually recognize and enjoy his individual autonomy. Without a "confident expectation" in the mother's availability, the child will struggle to try and restore the state of oneness he lost.

As noted above, Slipp (1976) also stressed the importance of symbiosis and omnipotence in depression. He argued that certain family group structures tend to prevent individuation and separation, and lead to

the development of depression. The family members appear to have omnipotent fantasies and feel overly responsible for one another, yet concurrently feel helpless and controlled by them. This pattern prevents individuation and the attainment of a separate identity apart from the family. The depressive feels responsible for the survival of his parents. To separate, means loss of control of hostile impulses and destruction of parents, and one's own fear of being destroyed. Slipp (1976) believed that the family does not provide an appropriate context in which the individual can test these beliefs and work through this omnipotence. Instead, this symbiotic pattern reinforces them.

Weiss (Note 1) and his co-workers made the same contention. They felt that psychopathology stems from certain unconscious beliefs acquired in early traumas, and that the individual is powerfully motivated to change them. The child, in their viewpoint, is motivated to achieve certain developmental goals, which include individuation, autonomy, the overcoming of omnipotent thinking, and the attainment of control over impulses, affect, and guilt. The child works to attain these goals primarily in relationship to his parents. In order to attain a certain developmental goal, he needs a mother or father who he believes wants him to attain it. Thus, it is the individual's unconscious beliefs about himself, others, and how he is likely to affect these objects and be affected by them that are central to his unconscious mental life, and thus, his psychopathology.

A common pathogenic belief, according to Weiss (Note 1), is the omnipotent idea that acts of independence would devastate a parent. Because of subtle encouragement from the parent the child is unable to disconfirm this belief. Therefore, the depressive family would appear to foster the child's belief in his responsibility for his mother's happiness and the omnipotent idea that acts of separation and independence lead to destruction.

Rubenfine (1968) also addressed this point. Like many other authors (e.g., Mahler, 1966), he believed that depressive affect originates in the child's discovery that his mother is a separate human being over whom he does not have omnipotent control and feels helpless without. With adequate confidence in the continued availability of the object in her absence, and the achievement of object constancy, the child is able to attain separation-individuation. Rubenfine argued that it is the child's inability to achieve object constancy that produces depression. Thus, he feels, that a "pre-disposition to depression originates in a fixation to a state of narcissistic unity with the mother."

Likewise, Smith (1971) pointed to the depressive's inability to successfully master separation-individuation. He wrote that in depression "individuation into a world of more or less equal and separate others is deferred in favor of a world limited to parents--ultimately mother" (p. 260).

Jacobson's (1964, 1971) view of depression also is based upon developmental considerations of ego psychology. She, like Bibring,

felt that pathology of self-esteem is central in depression, and therefore, Jacobson wrote extensively about the development of one's self-image. Initially one's self-image is fused with object-images, and Jacobson argues that perhaps the most important developmental goal is the firm establishment of a consistent self-image that is clearly differentiated from object-representations. Failure to achieve this will result in poor self-esteem, an inability to form satisfactory relationships, and depression. The establishment of a differentiated and stable self-image is attained during the separation-individuation process, and thus, points to the importance of a successful resolution of this process.

Arieti and Bemporad (1978) concurred on the importance of the separation-individuation process in the development of depression. Unlike Mahler (1966), these authors did not feel that depressive mood originates in the collapse of the child's belief in his and his parents' omnipotence. Rather, Arieti and Bemporad pointed to the practicing subphase of the separation-individuation process as being crucial to the development of depression. Thus, they wrote:

The roots of depression appear to reside in parental punishment and lack of response to the child's normal exploratory and mastery behavior, which leads to an automatic and unconscious inhibition of activities necessary for later development of an independent sense of worth through individual accomplishment (p. 191).

A Developmental Approach to Depression

As one reviews the literature on depression, it becomes more

and more apparent that depression is not a unitary phenomenon. The term "depression" has been used to describe a variety of affective disorders, a symptom present in a number of clinical states, a character style, and a normal affective state. Several authors have strongly argued in favor of distinguishing between the various uses of the term as well as between types of depression (e.g., Blatt, 1974; Jacobson, 1971; Mendelson, 1980). Mendelson (1980) expressed this need for a consideration of the variety of depressive states as he wrote:

This relative multiplicity of depressed states--associated in some instances perhaps with private biases on the parts of the authors describing these states--has led to a variety of psychodynamic formulations and conceptualizations of the depressive illnesses, each with partial application. For different writers, depression has not only different components but also different purposes. For one author it is, in essence, emptiness and loneliness; for another it is rage and guilt. For one observer it is a passive consequence of having sustained a loss in self-esteem; for another it is an active, though distorted, attempt to undo this loss (p. 150).

Clearly, it is only in the differentiation of types of depression does the study of depression become more intelligible, and the psychodynamics underlying depressive states, more decipherable.

From a review of the literature on depression, it seems that a developmental approach, based on ego psychology, is perhaps the most fruitful framework for studying depression. As we shall see, it is within this framework, especially in our understanding of the separation-individuation process (Mahler, 1979), that the psychodynamics of various depressive states becomes clearer.

Fenichel (1945) was one of the first psychoanalytic theorists to distinguish explicitly between types of depression based on developmental considerations. He differentiated neurotic and psychotic depression in terms of "the depth of the narcissistic regression," which Fenichel felt is based upon the extent to which "object relations are replaced by relations within the personality." In other words, although there is some difficulty in separation-individuation in all depressions, in a psychotic depression, the patient is unable to distinguish between the object and the self.

Fenichel postulated that the central issue in depression was a loss of self-esteem, and proposed several possible "injuries to infantile narcissism" which may precipitate depression. These "injuries" include experiences of abandonment, humiliations, and disappointments. Fenichel (1945) stated that "the whole depressive process appears as an attempt at reparation, intended to repair the self-esteem that has been damaged.

Although he felt that all depressions were precipitated by a loss to self-esteem or by the loss of supplies that regulate self-esteem, Fenichel acknowledged at least two distinct regulators of self-esteem; external supplies and the superego. Fenichel proposed that initially self-esteem is regulated by the availability of external narcissistic supplies, and later in the course of development, the superego provides an inner regulation of self-esteem. Fenichel, thus, describes two developmental levels of depression; a narcissistic-oral level, in which the depressive desperately needs to feel

loved, and a oedipal level, in which self-esteem is determined by doing the "right thing."

Bibring (1953), like Fenichel, also felt that depression was characterized by a lack of self-esteem. He argued, however, that depression was "the emotional expression (indication) of a state of helplessness and powerlessness of the ego, irrespective of what may have caused the breakdown of the mechanisms which established his self-esteem" (p. 24). Bibring, thus, saw depression as the ego's painful awareness of its helplessness in achieving its aspirations. He then posited three sets of narcissistic aspirations that correspond to different levels of psychosexual development. During the oral phase, the narcissistic aspirations are the need to be loved and taken care of. During the anal phase, the aspirations are to master bodily needs, to be loving, clean, and not to be resentful, defiant and dirty. Failure to achieve these aspirations results in feeling too weak to control one's impulses and guilt at one's lack of control. Finally, Bibring described another set of narcissistic aspirations which appeared at the phallic state. He characterized these as the wish to compete successfully, to be admired and strong, and not to be weak and fearful. Frustration of the wishes at this stage will result in feelings of inadequacy, inferiority and failure.

Anthony (1970), in his discussion of depression in adolescents, distinguished two types of depression. Anthony allied himself with those writers who see self-esteem regulation as central to depression (Bibring, 1953; Fenichel, 1945; Jacobson, 1971). The

first type of depression, labeled "pre-oedipal" is "based on a marked symbiotic tie with the omnipotent, need-satisfying mother." Thus, at this pre-oedipal level, there is no clear differentiation between self and object. Oral dependency is prevalent as are feelings of helplessness, weakness, inadequacy, inferiority, and shame. The "oedipal" level of depression is characterized by a punitive superego, and guilt predominates. Also evident is an abundance of self-depreciation and self-disgust.

Schmale (1972) distinguished two primary affects of depression; helplessness and hopelessness. According to Schmale, helplessness is the depressive affect that is associated with the separation experience. Helplessness is initially experienced upon the infant's awareness of his separateness from his mother, and simultaneous realization that he needs her for existence. He feels unable to do anything that will result in attaining the gratification he believes is not forthcoming. The affect of helplessness is then reexperienced when an object loss occurs, and the individual had felt dependent upon that object. Hopelessness on the other hand, is the depressive affect "associated with the castration experience." Schmale argues that "the feeling of hopelessness is associated with an awareness of unachievable acceptance." Wished-for relationships (oedipal) must be given up or repressed, and the child must accept that he cannot achieve what he desires because of his own inadequacies. Inability to achieve a desired goal later in life will inevitably lead to loss of self-esteem and helplessness.

Schmale (1972) also distinguished between exogenous and endogenous depression. Exogenous depression, Schmale believed, is "related to the loss (or threat of loss) of gratification provided by an external source upon which the individual has a feeling of dependence for his sense of stability and worth." Schmale argued that the symptom of depression is a "defensive compromise" that "protects the individual from re-experiencing the infantile trauma of separation from mother" and the subsequent affect of helplessness. Schmale sees endogenous depression as an intrapsychic struggle between the ego and superego. He proposed that endogenous depression is also a compromise, which attempts to protect the individual from castration trauma and concomitant feelings of inferiority and hopelessness.

From the above review, it appears that many authors have differentiated two types of depression. The first type appears to be mostly concerned with fears of losing the love-object and the supplies the object provided. Strong oral dependency wishes are manifest as well as feelings of helplessness. The second type of depression appears to be more developmentally advanced and is associated with a harsh superego and strong feelings of guilt, inferiority, failure and hopelessness.

Blatt and his co-workers (Blatt, 1974; Blatt, D'Affliti, & Quinlan, 1976; Blatt, Wein, Chevron & Quinlan, 1979) have been more explicit in distinguishing between these two types of depression than any other theorists. Blatt (1974) proposed that two types of de-

pression, anaclitic and introjective, could be differentiated in adults. Anaclitic depression is characterized by themes of helplessness, fears of abandonment, and feelings of weakness, depletion, and being unloved. Intense dependency on others predominates. Introjective depression, on the other hand, is characterized by themes of guilt, worthlessness, inferiority, and failure. A strong proclivity to assume blame and an intense concern over disapproval predominates. While in anaclitic depression, there exists intense fears of the loss of the loved object, in introjective depression the fear is over the danger of losing the love of the object.

Blatt (1974) argued that a crucial determinant in a vulnerability to depression is an impairment in the level of object representation. Those individuals predisposed to anaclitic depression are at a level of ego development where object relations are relatively undifferentiated and based on need gratification. There is a constant concern with the maintenance of direct physical or sensory contact with the object, and subsequently, an excessive vulnerability to depression through object loss. In contrast, those individuals who have a predisposition to introjective depression display a higher level of ego development. Object relations are at the later stages of separation and individuation, and thus, extend past need gratification. The central concerns are about receiving the love and approval of the object. The relationship, however, is quite ambivalent, and therefore, maintained through self-criticism and guilt.

Blatt (1974) contended therefore, that "actual, apparent, or

fantasized object loss is often a major precipitant of depression because impairment in the development of object representation leaves the individual vulnerable to object loss and to depression" (p. 151). The impairment in object representation, Blatt argued, is the result of an intensely ambivalent relationship with the parents in childhood, which renders the child helpless in retaining a consolidated representation of the object in its absence.

Masterson (1976) also stressed the importance of the capacity to evoke a stable mental representation of the object (mother) in her absence. The attainment of mental representation and object constancy is the result of successful separation-individuation, and enables the child to tolerate separation from the mother. The relationship between impairment in object representation and depression is clearly stated by Masterson in the following passage:

The further importance of object constancy is illustrated by the fact that it is a prerequisite for that process so vital to the repair of an object loss--that is, mourning. If one cannot evoke mental images of the lost object, how can one resolve all the painful feelings caused by this loss to form new object relations? If one cannot mourn, he becomes fatally vulnerable to object loss (p. 337).

Blatt (Blatt et al., 1976; Blatt et al., 1979) has been able to differentiate three groups of college students in terms of their depressive experiences. Consistent with his theory, he has found a group whose depression was primarily anclitic in nature (high Dependency), a group whose depression was primarily introjective (high Self-Criticism), and a group who showed a mixture of both.

The "New Look," Subliminal Perception, and the Unconscious

Shortly after World War II, a wave of studies were published which were responsible for the "new look" in perception (Bruner & Goodman, 1947; Bruner & Postman, 1947; McClelland & Atkinson, 1948; McGinnies, 1949; Postman, Bruner, & McGinnies, 1948). The major thrust of this "new look" was that the perception of external stimuli is, in part, a function of internal events. In other words, these theorists posited that perception is a personality phenomenon. An individual's needs, drives, attitudes, values, beliefs, motives, and defenses all influence his view of the world around him. Thus, the perceiver was introduced into the perceptual process. Although this viewpoint had long been acknowledged by most clinicians and personality theorists, it was only in the late 1940s that experimental psychology began to explore this area.

The "new look" in perception led to the concepts of "perceptual defense" and "perceptual vigilance" (Bruner & Postman, 1947). That is, the recognition thresholds for threatening or emotionally charged stimuli will differ from more neutral stimuli. Much of the research in the 1950s was designed either to support or refute these processes. Many authors (Eriksen, 1958; Goldiamond, 1958; Howes & Solomon, 1950, Postman, Bronson, & Gropper, 1953) tried to explain these phenomena in terms of other plausible theories or methodological weaknesses. Perhaps the most important of these arguments against the perceptual defense hypothesis was that put forth by Eriksen (1963) in terms of response bias. Eriksen felt that

perceptual defense has more to do with response variables than perception. Eriksen argued that habit strength based upon reinforcement of the response to partial cues is the most significant variable in recognition experiments. Erdelyi (1974) cogently argued, however, response bias positions, including partial cue hypotheses, are insufficient to explain the perceptual defense phenomena.

Most interesting in the "new look" research, and the source of the most controversy, is the implicit belief in two kinds of perception, with one occurring before the other. Thus, many authors argued (e.g., Eriksen & Browne, 1956) that the concept of perceptual defense necessitated the postulation of a preperceiver. If perception of anxiety-provoking stimuli is to be avoided, then the stimuli must first be perceived as something to be defended against. This argument brought on what was called the "homunculus" problem, that perceptual defense implied a man inside the perceivers head (Eriksen, 1958). Again, Erdelyi (1974) argued that this criticism falls apart as soon as one views perception as a multi-stage process. Erdelyi stated that stimuli can reach unconscious levels of registration and identification, but may be blocked from conscious perception.

Indeed, it was this idea that "registration" could occur without awareness (Klein, 1959) that was most welcome by psychoanalytic thinkers. According to this hypothesis, stimuli might be "perceived" at a level below recognition, and then evaluated in terms of how safe they are to be perceived with recognition. It was with this idea in mind that experimenters turned their attention to subliminal percep-

tion. Subliminal stimuli are those that cannot be consciously perceived, even when one's attention is directed toward them. It was assumed that if one's cognitions and behaviors could be influenced by stimuli which one was not aware of, the experimental study of unconscious phenomena and their effects would be made possible (Wolitzky & Wachtel, 1973).

Experimentation with subliminal stimuli was not new, and demonstration of some subliminal effects date back more than a century (see Miller, 1939 for a review of some of these studies). In fact, it was a study in 1917 by Poetzl that attained Freud's attention more than any other experiment (Klein & Holt, 1960). In this experiment, Poetzl found that the manifest content of a dream could be influenced by a brief exposure (10 msec) to a stimulus that was not consciously perceived. Although this experiment appeared to be a bridge between psychodynamic theory and experimental psychology, relatively little interest was manifested in the study until almost forty years later.

Experimentation in subliminal perception did not prove to be the great panacea that was hoped for, and, as Dixon's (1971) extensive review indicated, was filled with much lively debate and controversy. The resurgence of research at this time was in line with Poetzl's original experiment. Fisher (1956, 1957, 1960) found that subliminal stimuli can influence the content of images and dreams. He proposed a two-stage process in perception with the first being an unconscious phase. This idea is somewhat less conservative than

that of Klein (1959), who spoke of "registration," rather than "perception" without awareness. Still, the main point stressed by both authors is that a stimulus that is not consciously discriminated can still exert an influence on our cognitive experience. Klein (Klein & Holt, 1960) argued, furthermore, that the subliminal effects last only a brief period of time and have to be incorporated into some ongoing cognitive activity, an "active drive-schema," to have an effect. Drive relevance is an important concept in the work of Silverman (1967) and therefore, will be discussed in more detail below.

Another point made by many of the writers in subliminal perceptions is that the effects of a stimulus presented subliminally differs from the effects of the same stimulus presented supraliminally (Pine, 1960; Shevrin & Luborsky, 1961; Silverman, 1967; Spence, 1961). These researchers argued that subliminal and supraliminal stimuli differ on both the amount of the effect produced as well as the kind of effect obtained. Apparently, subliminal stimuli give rise to more indirect effects (Pine, 1960), such as symbolic transformations and fluctuations in ego functioning than supraliminal stimuli.

Although as Wolitzky and Wachtel (1973) wrote in their review, subliminal "effects are not robust . . . not easily replicated . . . and are frequently weak, subtle, or ambiguous," it seems clear that they do exist. Recently, Shevrin and Dickman (1980) reviewed the research, and concluded that there is convincing evidence for the

existence of subliminal perception. Much of the recent evidence comes from neurophysiological studies. It has been demonstrated that subliminal stimuli can evoke cortical responses (Dixon, 1971; Kostandov & Arzumanov, 1977; Libet, Alberts, Wright, & Feinstein, 1967; Shevrin & Rennick, 1967; Shevrin, 1978).

Despite the many criticisms and qualifications of the research in subliminal perception, there is a significant amount of data that shows its usefulness in exploring certain psychological phenomena. As Dixon (1971) concluded from his comprehensive review of the research "subliminal stimulation has been shown to affect dreams, memory, adaptation level, conscious perception, verbal behavior, emotional responses, drive-related behavior, and perceptual thresholds" (p. 320).

Subliminal Psychodynamic Activation

In the early 1960s, L. H. Silverman and his colleagues developed a method for the experimental study of psychodynamic relationships (see Silverman, 1976 for a review). This method termed "subliminal psychodynamic activation" is based on the earlier work in subliminal perception of Fisher and others (summarized in Wolitzky & Wachtel, 1973). This research, which makes use of the phenomenon of subliminal perception for investigating the effects of unconscious mental processes on psychopathology, utilizes the tachistoscopic presentation of wish-related verbal and pictorial stimuli. The rationale for the use of this method is as follows:

A stimulus containing a wish-related content first should make contact with derivatives of the related wish if the wish is currently active in the individual. Then . . . the emerging wish-related ideas and images are likely to be transformed so that their wish related character is obscured. This we thought would be the case for those individuals for whom the wish was unacceptable in the first place, and this would include those whose psychopathology was based on that wish. For them it seemed especially unlikely that the wish derivatives would gain access to awareness, let alone be experienced in the form of a conscious impulse. Instead the derivatives could be expected to press for expression without the person's awareness; and as already noted, it is just a circumstance that psychoanalytic theory postulates that psychopathology can ensue (Silverman, 1976, p. 625).

"Subliminal psychodynamic activation" thus provides an experimental paradigm to test dynamic propositions. In this method, an unconscious wish is "manipulated" and the consequences of this manipulation are observed. Since psychoanalytic theory sees psychopathology as an expression of an unconscious conflict, it is important that the "status" of this wish is not changed from it being unconscious to it becoming conscious. This method allows subliminal messages to make contact with unconscious wishes without forcing them into consciousness. Over thirty published reports have appeared in the literature to date supporting the use of this method in achieving its aim (Silverman, 1978). The subliminal presentation of a wish-related stimuli was shown to significantly affect the subjects' level of pathology as compared to a neutral stimuli.

Silverman's research group has investigated both pathology intensifying and pathology reducing stimuli. Those studies designed to increase psychopathology attempted to stir up specific conflictual libidinal and aggressive wishes postulated to be central in patho-

genesis. In experiments investigating thought disorder, homosexual orientation, stuttering, and depressive feelings the "relevant" wish-related stimulus intensified psychopathology, while "irrelevant" or neutral stimuli had no effect (Silverman, Bronstein, & Mendelsohn, 1976). The results from these studies are consistent with psychoanalytic formulations that propose a relationship between oral aggressive wishes and thought disorder in schizophrenics, incestuous wishes and male homosexuality, anal wishes and stuttering, and aggressive wishes and depression.

More recently, Silverman has directed his efforts to pathology reducing phenomena (Silverman, 1979). Silverman has proposed that there are both preoedipal and oedipal fantasies which have ameliorative effects on psychopathology.

The preoedipal fantasy, posited to have a symptom reducing effect when activated by a subliminal presentation, is termed a "symbiotic gratification fantasy." In this fantasy, there is a partial merging of self with mother. In eight studies carried out on male schizophrenics, the subliminal exposure of the symbiotic stimulus MOMMY AND I ARE ONE led to a reduction in symptomatology that was not evident in the control session (Silverman, Spiro, Weissberg, & Candell, 1969; Silverman & Candell, 1970; Silverman, Candell, Pettit, & Blum, 1971; Bronstein, Note 2; Kaplan, Note 3; Kay, Note 4; Leiter, Note 5; Spiro, Note 6). In each of these experiments, there was a significant decrease in "primary process ego

pathology" in relatively differentiated schizophrenics following exposure to this stimulus.

Recent research has found this subliminal message to have pathology reducing and ameliorative effects on diverse non-psychotic populations and non-psychiatric groups as well. Silverman and Wolitzky (Note 7) found a significant reduction in psychological defensiveness following the symbiotic condition in a group of normal research volunteers. Parker (Note 8), found that a group of undergraduate college students obtained significantly higher final exam grades than a matched control group after receiving the subliminal message MOMMY AND I ARE ONE four times a week over a six week summer session. The control group's stimulus was the neutral message, PEOPLE ARE WALKING.

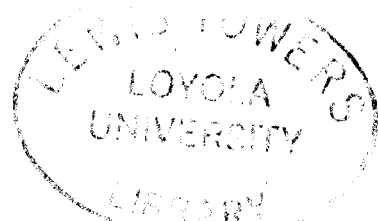
The symbiotic message also was found to have ameliorative effects on particular neurotic symptoms as well. In one study (Silverman, Krawer, Wolitzky, & Coron, 1973), a group of male homosexuals displayed diminished anxiety and defensiveness following the presentation of the symbiotic message when compared to a neutral control stimulus. In another study (Silverman, Frank & Dachinger, 1974) twenty women with insect phobias, who were receiving systematic desensitization, had their treatment accompanied by subliminal stimulation. On measures of both phobic avoidance and anxiety, the women receiving the subliminal stimulus MOMMY AND I ARE ONE manifested significantly more improvement than those receiving the neutral, PEOPLE ARE WALKING message.

Two other studies (Martin, 1975; Silverman, Martin, Ungaro, & Mendelsohn, 1978) investigated the effect of the subliminal symbiotic message on a group of obese women who were receiving behavior modification treatment. Those that received the symbiotic message lost significantly more weight than the control group.

In still another study (Schurtman, Note 9) alcoholics were exposed to subliminal stimulation in addition to an Alcoholics Anonymous type of counseling. In blind ratings by the counselors, the treatment was found to be significantly more effective for those patients who received the symbiotic message as compared to those who received the neutral message. Additionally, the alcoholics who received the MOMMY AND I ARE ONE message also showed a significant decrease in depression compared to the control group.

In light of the findings that the activation of the fantasy of oneness with the "good" mother of infancy appears to have ameliorative consequences in a wide range of populations, Silverman (1978a) has termed the symbiotic fantasy an "ubiquitous therapeutic agent." Silverman proposes that this fantasy owes its therapeutic power to the wide range of functions it potentially can serve. According to Silverman, the possible needs being gratified include:

- (1) magical fulfillment of libidinal wishes for maternal warmth and oral gratification;
- (2) insurance against object loss;
- (3) restoration of narcissistic equilibria;
- (4) rectification of impaired ego functions;
- (5) elimination of destructive impulses toward mother;
- (6) dissipation of guilt toward mother for real and fantasized



harmful acts; (7) defense against oedipal wishes; and (8) a disguised and acceptable expression of incestuous wishes in males.

Of importance to this current investigation is a study conducted by Mendelsohn (Note 10) on a group of male schizophrenics. Ostensibly, Mendelsohn's study was designed to further investigate the ameliorative effect of stimulating a symbiotic fantasy in schizophrenics with the MOMMY AND I ARE ONE message. Contrary to his initial hypothesis, however, he found that the message MOMMY AND I ARE TWO led to significantly more pathology reduction than the "oneness" message. This message was utilized because it suggested a relationship of greater differentiation than the "oneness" message, without incorporating such negative connotations as separation and object loss that could lead to increased pathology (Bronstein, 1976; Litwack, Wiedermann, & Jager, 1979). Mendelsohn hypothesized that the MOMMY AND I ARE TWO message was more ameliorative than the MOMMY AND I ARE ONE stimulus because it activated a fantasy of a close, positive relationship with mother without endangering self-object boundaries. Thus, this "twoness" message protects against the fantasized dangers of object loss and loss of self, while providing gratification and serving adaptive needs.

The other unconscious fantasy that Silverman's laboratory has shown to be effective in reducing psychopathology is the "sanctioned oedipal-gratification fantasy" (see Silverman, 1979). Silverman, as do most psychoanalysts, argues that much of adult behavior can be partly understood as derivative expressions of oedipal

strivings. These behaviors include everyday sexual contact between men and women, competition in sports and elsewhere, and vocational accomplishment. Additionally, conflictual oedipal wishes have been shown to be important in many kinds of pathology, such as conversion reactions, phobias, and male homosexuality (Fenichel, 1945; Gillespie, 1964).

In their investigation of the effects of oedipal wishes on behavior, Silverman, Ross, Adler, and Lustig (1978) found that a subliminal message designed to stimulate a fantasy of sanctioned oedipal gratification, BEATING DAD IS O.K., led to significantly improved dart throwing scores in a group of male undergraduates. Conversely, the message BEATING DAD IS WRONG significantly decreased dart throwing accuracy. Silverman et al. (1978) felt that this message stimulated unconscious oedipal guilt, and thus interfered with competitive performance.

While most of Silverman's research has been concerned with unconscious wishes or drives, Litwack et al. (1979) demonstrated that psychopathology can also be intensified by anxiety-related stimuli as well. Citing the importance of the fear of object loss in the dynamics of schizophrenia, Litwack et al. (1979) found that the verbal message I AM LOSING MOMMY exacerbated indices of ego pathology in a group of schizophrenics. Their results suggest that not only wish-related stimuli, but also stimuli that evokes fear and anxieties can intensify psychopathology.

The research by Silverman et al. (1978) in their dart studies is also relevant here. As already mentioned, they were able to demonstrate that a guilt-inducing message, BEATING DAD IS WRONG, led to diminished performance on a task. Thus, we can see that it is not just the activation of unacceptable libidinal and aggressive wishes and drives that lead to pathology and/or a reduction in task performance, but also the evocation of guilt, anxiety, and fears.

Subliminal Research with Depression

Although much of the research that has come out of Silverman's laboratory is concerned with schizophrenia, there have been several investigations of the effects of subliminal stimulation on depression (Rutstein & Goldberger, 1973; Silverman, Bronstein, & Mendelsohn, 1976; Cox, Note 11; Miller, Note 12; Nissenfeld, Note 13; Varga, Note 14). Most of these studies attempted to test the psychoanalytic proposition that the core unconscious conflict in depression is over aggression. According to this theory, which was first advanced by Abraham (1911) and Freud (1917), unacceptable aggressive impulses that have been mobilized toward a disappointing or lost love object are turned against the self in prone individuals resulting in depression.

The centrality of a conflict over aggression in depressed individuals has received support in several studies using the subliminal psychoactivation method. Rutstein and Goldberger (1973)

found that suicidal inpatient women showed significantly more depression following the aggressive subliminal message (DESTROY MOTHER, which was accompanied by a picture of a young, menacing-looking woman with a large dagger about to stab an older woman) than following either the neutral or supraliminal aggressive stimuli. Another study that attempted to replicate this finding (Silverman et al., 1976) produced equivocal results. While pathological non-verbal behavior increased after the aggressive condition, no significant difference emerged on the depression inventory. The authors were able to explain the failure of replication, however, by differences between the two populations studied. A large percentage of the subjects in the Silverman et al. (1976) study had manic qualities and attempted to deny depression. When the use of denial was controlled for, there was a strong trend ($p = .06$) toward increased depression following the subliminal aggressive condition.

Two other experiments, using college students as subjects, produced results that parallel the Rutstein and Goldberger (1973) study. Varga (Note 14) studied students who showed a predisposition to emotional instability and hypomania, as measured by pre-experimental testing. Varga found that the aggressive subliminal stimulation (STAB MOTHER, with an accompanying picture) led to a significant decrease in hypomania as well as a significant increase in depressed mood. None of the other stimuli, which included a loss message (I LOST MOMMY, with a picture of a child crying over a coffin), an oral gratification message (MOMMY FEEDS ME, accompanied

by a picture of a baby nursing at mother's breast), and a neutral control stimulus, had an effect that approached significance.

Miller (Note 12) studied the effects of subliminal stimulation on college students who had lost parents during childhood or adolescence. She found that subjects who had lost a parent during childhood become significantly more depressed following an aggressive subliminal message (LION DESTROYS MAN for male subjects and LION DESTROYS WOMAN for female subjects) than either subjects who had not experienced such a loss or those who had lost a parent during adolescence. Thus, the importance of aggressive impulses in the psychodynamics of depression once again received experimental support. Additionally, loss of a love-object during an early age appeared to be highly significant in the development of a proneness to depression.

Nissenfeld (Note 13) attempted to replicate the results of those investigators (Rutstein & Goldberger, 1973; Miller, Note 12; Varga, Note 14) who found that an aggressive message led to an increase in the level of depression in the subjects tested. Contrary to these previous investigations, Nissenfeld failed to find an increase in depressed mood following the aggressive message (DESTROY MOTHER). In discussing possible reasons for why the aggression condition did not yield an increase in subjects' feelings of depression, Nissenfeld examined the discrepancies between his study and prior findings. Whereas, his study used a non-schizophrenic population, the effect of the aggression condition was previously found in a schizophrenic population (Rutstein & Goldberger, 1973) and two

groups of college students prone to depression (Miller, Note 12; Varga, Note 14). Nissenfeld's findings do, however, replicate those of Cox (Note 11) who also reported an absence of an effect for the aggressive condition in a non-psychotic depressed population. Cox found that only a psychotic group displayed heightened depression (self-directed aggression and lowering of self-esteem) following an aggression condition. Nissenfeld felt that the effect found in the two studies (Miller, Note 12; Varga, Note 14) using depressively-prone normals could be explained by the "priming" that was done. The priming involved the reading of a passage about death that was designed to stir up depressive images and aggressive drive derivatives, thus making them more accessible to subliminal stimulation. Silverman (1965, 1966) has suggested that the relevant wish-related fantasies must be active in the individual, and at a certain minimum level of intensity for subliminal stimulation to be effective. Nissenfeld (Note 13), therefore, posited that with schizophrenics the aggressive fantasy is at a level which is intense enough to make contact with the subliminal message, while with non-psychotics priming is necessary.

Nissenfeld (Note 13) also examined the effect of the symbiotic message on non-psychotic depressed women. Following the symbiosis condition (MOMMY AND I ARE ONE), subjects displayed a significant increase in feelings of well-being and a trend toward heightened self-concept. Furthermore, Nissenfeld found a significant decrease in an overall measure of depression when he combined the scores from

various projective and objective tests. Nissenfeld felt that the symbiotic message owed its ameliorative power to its ability to promote a fantasy of oneness with mother and thus, insuring against feared object loss, which is significant in depression. Recalling the needs Silverman (1979) proposed that the symbiotic fantasy may serve, another function may also be relevant to depression, namely, the dissipation of guilt for real or imagined hurts inflicted upon the mother.

Dauber (Note 15) likewise attempted to replicate the findings of those investigators who previously had reported heightened depression, in various depressed groups, following a subliminally presented aggressive stimulus (Rutstein & Goldberger, 1973; Miller, Note 12; Varga, Note 14). Dauber, however, found an absence of significant change following the aggression condition (DESTROY MOTHER). This result is in accordance with Nissenfeld (Note 13), who also reported a lack of a significant difference between the aggression condition and the neutral condition. Whereas, Nissenfeld was able to explain his differences with the previous research by the lack of "priming" in his study, Dauber did prime his subjects, who consisted of depressively-prone college females. Dauber (Note 15) felt, however, that the discrepancy between his findings and those of Miller (Note 12) and Varga (Note 14), who also primed college students, could be accounted for by several possible explanations, which included differences in subjects, procedure, stimuli, and priming.

Dauber (Note 15) also attempted to replicate the research of Nissenfeld (Note 13) who found a significant increase in feelings of well-being following the symbiosis message. Unlike the previous research, Dauber reported a lack of a significant decrease in depressed mood following exposure to the symbiotic condition. This finding, again, is in contrast to the research preceding this study that reported an ameliorative effect, with various populations, following the MOMMY AND I ARE ONE message (Silverman et al., 1969; Silverman & Candell, 1970; Silverman et al., 1971; Silverman et al., 1973; Silverman et al., 1974; Bronstein, Note 2; Kaplan, Note 3; Kaye, Note 4; Leiter, Note 5; Martin, Note 16; Nissenfeld, Note 13; Parker, Note 8; Schurtman, Note 9; Silverman & Wolitzky, Note 7).

While Nissenfeld (Note 13) did find a significant increase in feelings of well-being, as measured by the TAT, following the presentation of the symbiotic message, he did not find any significant decrease due to treatment effects of experienced depression as measured either by the Multiple Affect Adjective Check List (MAACL) or the TAT. Only after combining five scores into a single measurement of depression, did Nissenfeld's experiment result in a significant decrease in level of depression ($p < .026$). Thus, it appears that in a non-schizophrenic population, the effect is so subtle that one needs quite a sensitive way of measuring it. This would seem to be even more the case with normal college students, whose level of symbiotic fantasy is not as intense and therefore, would require either much "priming" or else repeated stimulation. Indeed only

schizophrenics have consistently displayed an ameliorative response to the symbiotic message when presented in a single session. Most of the recent studies, especially those with non-schizophrenics, have used repeated exposure to the MOMMY AND I ARE ONE message, usually lasting five or six weeks, to achieve their adaptation-enhancing effects (Silverman et al., 1974; Martin, Note 16; Parker, Note 8; Schurtman, Note 9).

Dauber (Note 15) did find, however, that a guilt-inducing message concerning separation and feelings of autonomy (LEAVING MOM IS WRONG) produced a highly significant increase in reported depression ($p < .01$) as measured by a modification of the Depressed Adjective Check List (DACL). The finding that the guilt-inducing message resulted in a significant increase in depression supported those writers who stress the importance of both guilt and dependence in depression (Areti, 1962; Bemporad, 1971; Cohen et al., 1954; Slipp, 1976). The depressed individual appears to be one who is extremely sensitive to feelings of guilt, especially in connection with autonomous strivings. Several theorists have postulated that the families of depressives foster feelings of omnipotence (Bemporad, 1971; Slipp, 1976). The omnipotent fantasies of the depressive often are so powerful that any strivings for independence are interpreted by them to be an aggressive act. Consequently, the depressive feels more guilty, and subsequently, more depressed.

Although Dauber (Note 15) reported an increase in depression following the presentation of a guilt-inducing message, a guilt-

alleviating stimulus (LEAVING MOM IS O.K.) had no effect. Dauber proposed several hypotheses for this lack of significant change in depressive affect. Perhaps the simplest hypothesis is merely that it is much easier to intensify guilt in depressives than to relieve them of guilt feelings. A second quite plausible explanation is that the message LEAVING MOM IS O.K. may be a double, conflictual message. This message, which implies a separation from a love object, certainly could lead to depression. Perhaps, then, the "O.K." part of the subliminal message was not powerful enough to counteract the effects of "LEAVING MOM."

Hypotheses

Based upon the review of the theoretical and empirical literature in depression reported above, several hypotheses were put forth and tested experimentally, utilizing the subliminal activation technique. The first hypothesis was that the separation-individuation message, MOMMY AND I ARE TWO, would decrease depressive affect when presented subliminally. There were several reasons for proposing this hypothesis. First, individuals appear to be quite motivated to give up symbiotic object relations, and achieve the developmental goals of separation and individuation. Second, individuals appear to be prevented from doing so because of the consequences they believe that these acts will have upon them and their objects. It was noted above that two functions that the MOMMY AND I ARE ONE fantasy appeared to serve were the assurance against object loss and the dissipation of guilt. While this fantasy does serve

these functions, it does not allow for individuation and separation, processes that appears to be necessary in overcoming depression. It is, therefore, hypothesized that a subliminal message that will activate a fantasy that allows for separation-individuation, while at the same time protecting against object loss and harm, would produce a reduction in depressive affect. The message MOMMY AND I ARE TWO would appear to do this in that it implies separation without harm; togetherness and closeness without merger. A third and final note needs to be added on why this message might be additionally helpful in decreasing depression. According to Blanck and Blanck (1974), a common type of depression consists of simple identification with the affective state of the object--a depressed mother, for example. This appears to be the result of a regression from a higher degree of differentiation to a symbiotic state. One retains the object in this manner by retaining the affective state of the object. If this is the case, then a message that would promote individuation and the development of a separate identity should decrease depression, especially in those individuals who have mothers who are depressed themselves.

The second area of investigation was the presence of guilt in depression. Guilt in depression was examined through the use of two subliminal messages; a guilt over autonomy message, LEAVING MOM IS WRONG; and a simple guilt-inducing message I AM STANDING WRONG. It was hypothesized that the message LEAVING MOM IS WRONG when presented subliminally would intensify unconscious guilt feelings over inde-

pendence and autonomy that are postulated to be quite prevalent in depressives, and thus would result in an increase in depression. The simple guilt-inducing message, I AM STANDING WRONG was tested to help specify the exact nature of the guilt in depression. It was hypothesized that this message would not be as "relevant" to the dynamics of depression as the guilt over autonomy message, and therefore, would have no effect.

The fourth hypothesis to be investigated concerned the loss message. I AM LOSING MOMMY. It was felt that this message would activate unconscious fears of losing the love object that are presumed to be present in the depressed subjects tested. Since in infancy, one's security, stimulation, and state of well-being is supplied by one's mother, the loss of this relationship would appear to be the prototype of later depression. If one is threatened with the loss of one's mother as love object, anxiety and depression should ensue as one's psychological integrity is threatened. It was, therefore, hypothesized that the loss message I AM LOSING MOMMY would result in an increase in depressed affect when presented subliminally.

Finally, the last two hypotheses concerned the specificity of the loss message and the guilt over autonomy message. It was hypothesized that the effects of these messages would vary for specific subgroups of the population. Subjects were given the Depressive Experiences Questionnaire (DEQ) developed by Blatt, D'Afflitti, and Quinlan (1976), which provided an anaclitic and an introjective score. Based on Blatt's research, it was hypothesized

that the high anaclitic depressives would be more strongly affected by the loss message than the low anaclitic group. Likewise, the high introjective group should be more significantly affected by the guilt over autonomy message than those who scored low in the introjective depression.

To sum, the following six hypotheses were made:

- (1) The MOMMY AND I ARE TWO subliminal stimulus, designed to promote separation-individuation, would be gratifying, and therefore lead to a reduction in depressive affect;
- (2) the LEAVING MOM IS WRONG subliminal stimulus, designed to activate unconscious guilt over autonomous strivings, would lead to an increase in the level of depressed feelings;
- (3) the I AM STANDING WRONG subliminal message would not be relevant, and therefore, would have a significantly smaller effect than the LEAVING MOM IS WRONG message;
- (4) the I AM LOSING MOMMY subliminal stimulus, designed to activate unconscious fears of object loss, would lead to heightened depressive affect;
- (5) a group of high anaclitic depressives who receive the loss condition would show significantly more depression following this subliminal message than a low anaclitic group; and
- (6) likewise, a group who scored high on introjective depression would become significantly more depressed following the guilt over autonomy stimulus than a group who scored low on this measure.

METHOD

Subjects

The subjects were 36 female undergraduate college students, who were selected from a larger population that had volunteered to take the initial screening measures. For purposes of this study, those subjects who scored a total of ten (10) or above on the Depression Inventory (BDI) constructed by Beck (1967) were used. This cut-off point had been utilized by Beck to identify depressed subjects for research purposes (Beck, 1967; Beck & Beamesderfer, 1974) and also has been used by others in previous subliminal research to identify depressed subjects (Dauber, Note 15; Nissenfeld, Note 13). An additional criteria was that all subjects were from homes in which their parents spoke to them primarily in English.

Materials

Stimuli and Apparatus

The stimuli used in this study consisted of verbal messages and congruent pictures (see Appendix G). There were four critical stimuli, two neutral, control stimuli, and four neutral, baseline stimuli. The verbal messages were all printed in letters approximately 1.5 cm high and occupied two lines of a white card. The darkness of the lines in both the verbal and pictorial stimuli were such that the stimuli became identifiable at approximately thirty-two milliseconds (32-msec) viewing time. The

critical stimuli were as follows: (1) the loss stimulus, which consisted of a) the verbal message I AM LOSING MOMMY, and b) a picture of a sad woman turned away from a young frowning woman; (2) the guilt over autonomy stimulus, which consisted of a) the verbal message LEAVING MOM IS WRONG, and b) a picture of a frowning young woman turned away from a sad, older woman; (3) the simple guilt inducing stimulus, which consisted of a) the verbal message I AM STANDING WRONG and b) a picture of a frowning young woman; and (4) the separation-individuation stimulus, which consisted of a) the verbal message MOMMY AND I ARE TWO, and b) a picture of a young smiling woman standing next to an older woman, who is also smiling. The neutral control stimuli consisted of a) the verbal messages PEOPLE ARE WALKING or PEOPLE ARE TALKING, and b) a picture of two women standing next to each other. The four neutral stimuli that were used to assess each subject's baseline functioning were the messages PEOPLE ARE LOOKING, PEOPLE ARE STANDING, PEOPLE ARE WALKING, and PEOPLE ARE TALKING, all with accompanying pictures.

The stimuli were presented through an electronically controlled scientific prototype three-field tachistoscope. The blank field always contained a plain white card that served as a light mask. The viewing distance was 1.3 meters. The sequence of viewing was designed so that each subject saw the blank field when she looked into the machine. When the stimulus was flashed, the blank field went off for that time and then came on immediately afterwards. The illumination for the blank field was 12 footlamberts and 5 foot-

lamberts for the stimulus field. Room illumination was set at 12.5 footlamberts. The exposure speed for the tachistoscopic presentations was four milliseconds (4 msec). There were four presentations of each pair of stimuli, with the pictorial stimulus preceding the verbal stimuli by three seconds, and a five second interval between the presentation of each pair.

Response Measures

Two instruments were used to yield dependent measures of depression. The first instrument was the Depressed Adjective Check List (DACL) devised by Lubin (1965). Varge (Note 14) introduced a modification of a similar inventory which was used in the present study. Instead of a checklist, a 50-point scale was presented on which the subjects were asked to make a mark along a continuum corresponding to their feelings at the time. The scale ranges from "Not at All" to "Extremely," and thus, allows for a finer discrimination of moods than the standard checklist (see Appendix B). Forms A, B, and C of the DACL, each containing 32 adjectives were used in this modified fashion, with the same form being given before and after each of the three conditions.

The second instrument used to measure depression was the Thematic Apperception Test (TAT). Six TAT cards were used to assess changes in level of depression. One card was presented after each of the three baseline stimuli and one card was presented after each of the critical stimuli. For Condition One, cards 1 and 6 GF were

used; for Condition Two, cards 8GF and 7BM were used; and for Condition Three, cards 13B and 9GF were used. The order of presentation was reversed for the even numbered subjects to control for the depressive pull of the card. The cards were scored for depression according to the technique developed by Welch, Schafer, and Dember (1961). Inter-rater reliability obtained by the authors ranged from .81 to .88. In previous subliminal studies using this method inter-judge reliability has ranged from .69 to .71 (Nissenfeld, Note 13 Varga, Note 14).

Other Independent Measures

Aside from the Beck Depression Inventory, one other inventory was administered prior to the experimental procedure, the Depressive Experiences Questionnaire (DEQ) developed by Blatt, D'Afflitti, and Quinlan (1976). This 66-item questionnaire was designed to assess aspects of feelings about the self and general interpersonal relations thought to be related to depression. Prior research (Blatt et al., 1976) has indicated that the DEQ assesses three factors relevant to depression: Dependency, Self-criticism, and Efficacy. The first two factors were used in the present study to divide subjects into anaclitic and introjective groups.

Procedure

Upon entering the room, each subject was given an information sheet, which explained the nature of the experiment, and included a consent form which they were asked to sign (Appendix C). Following

this, the subjects were given the "priming," which consisted of (1) a questionnaire designed to obtain information about their family and current living arrangements (Appendix D); (2) TAT cards 7GF and 2, to which the subjects were asked to make up stories; and (3) a memory task, in which the subjects recalled a story read to them by the examiner (Appendix E). Aside from minor changes, in the questionnaire, the priming was identical to that of the Dauber (Note 15) study.

The subjects were then introduced to the tachistoscope and told that they would be viewing words and pictures at 4/1000 of a second. The subjects were then told to put on their glasses or contacts (if they wore them) and to look into the tachistoscope at a fixation point, which appeared in the center of the blank field.

The following instructions were given:

Put your eyes against the eyepiece of the machine. I would like you to focus your eyes on the dot which appears in the center of the screen. I will then remove the dot, say "ready, get set" and then press a button. Then please tell me what you have seen, such as a flash or flicker of light, or anything else that appears.

The subjects were then given four exposures of the first neutral baseline stimulus at the duration and interval noted above.

Next, the baseline DACL was administered with the following instructions:

A number of research studies have found that if one pays attention to one's emotions, not only can one find changes in emotional states from day to day but from hour to hour and from minute to minute. We would like you to try this experiment and

see how often you can sense a change of feelings. You will be given this mood scale several times during the experiment and your job is simply to place a vertical line at the point along each scale which represents the extent to which you are experiencing that particular emotion RIGHT NOW. Although only a few points along the scale are labeled, feel free to place your line at any point along the scale. How much of this feeling do you have right now?

This was followed by four refresher flashes of the same neutral stimuli and then the baseline TAT was given with the following instructions:

You are going to see some pictures on cards, and your task is to tell a story for each one, a story with a plot and characters. You will have four minutes to tell your story to each card. I will tell you when it is time to finish up. There are no right or wrong stories, so feel free to tell whatever story is suggested to you when you look at a picture. The four questions on the card should guide your storytelling (the examiner then places the card in front of the subject, reading the question aloud): (1) What is happening? Who are the persons? (2) What has led up to this situation? That is, what has happened in the past? (3) What is being thought? What is wanted? By whom? (4) What will happen? What will be done."

The stories were recorded as close to verbatim as possible, with the subjects being told of the time approximately 30 seconds before the time limit elapsed. The time limit was imposed on this study to allow for a better comparison of the stories, by approximately controlling for length.

Following the baseline measures, the critical stimuli were presented. The subjects were randomly divided into two groups of 18 subjects each. Group A received the separation-individuation stimulus (MOMMY AND I ARE TWO), the guilt over autonomy stimulus (LEAVING MOM IS WRONG), and the neutral control stimulus (PEOPLE

ARE TALKING). Group B received the loss message (I AM LOSING MOMMY), the simple guilt-inducing message (I AM STANDING WRONG) and the neutral control message (PEOPLE ARE WALKING). Each critical stimulus was presented in a counterbalanced order to control for sequence effects. Each condition was also preceded by a different neutral baseline stimulus. The baseline stimuli were PEOPLE ARE LOOKING for condition one, PEOPLE ARE STANDING for condition two, and either PEOPLE ARE WALKING (Group A), or PEOPLE ARE TALKING (Group B) for condition three. The experimental design was double-blind, with neither the experimenter nor subject knowing which stimulus was being presented. This was accomplished by having someone other than the investigator code each of the stimuli in advance.

After four pairs of flashes of the critical stimuli, the subjects were given the critical DACL. Following this, four refresher flashes were presented and then the critical TAT was administered. This procedure was repeated for each of the three conditions. The procedure is summarized in Table 1.

Subsequent to the above procedure, each of the subjects was given a discrimination task to determine if the subjects were able to detect any differences between two pairs of stimuli above a chance level. The discrimination task was therefore administered as a check for subliminality of stimuli, and to ensure against the possibility that any effects might result from supraliminal partial cues (see Appendix F for discrimination task instructions).

Table 1

Summary of Experimental Procedure

-
- A. Information/Consent
- B. Questionnaire
- C. Priming
 TAT CARD 7GF
 TAT CARD 2
 STORY RECALL TASK
- D. Procedure
1. 4 flashes of neutral baseline stimulus #1
 2. Baseline DACL A
 3. 4 refresher flashes of neutral baseline stimulus #1
 4. Baseline TAT (CARD 1^a or CARD 6GF^b)
 5. 4 flashes of critical stimulus #1
 6. Critical DACL A
 7. 4 refresher flashes of critical stimulus #1
 8. Critical TAT (CARD 6GF^a or CARD 1^b)
 9. 4 flashes of neutral baseline stimulus #2
 10. Baseline DACL B
 11. 4 refresher flashes of neutral baseline stimulus #2
 12. Baseline TAT (CARD 8GF^a or 7BM^b)
 13. 4 flashes of critical stimulus #2
 14. Critical DACL B
 15. 4 refresher flashes of critical stimulus #2
 16. Critical TAT (CARD 7BM^a or 8GF^b)
 17. 4 flashes of neutral baseline stimulus #3
 18. Baseline DACL C
 19. 4 refresher flashes of neutral baseline stimulus #3
 20. Baseline TAT (CARD 13B^a or 9GF^b)
 21. 4 flashes of critical stimulus #3
 22. Critical DACL C
 23. 4 refresher flashes of critical stimulus #3
 24. Critical TAT (CARD 9GF^a or 13B^b)
- E. Discrimination Task
- F. Conscious Association Task
- G. Debriefing
-

^aOdd numbered subjects.

^bEven numbered subjects.

Following this, the subjects were given a conscious associations task. Each subject was given index cards with a different stimuli printed on each one. They were shown one at a time, and asked: "When you see these words: _____ (read by the experimenter), what does it bring to mind, what does it mean to you or make you think of?" After the subject responded, a brief inquiry was conducted, if necessary, to clarify the conscious meaning of the stimulus to the subject.

Finally, information concerning language(s) used in the home, word used for mother as a child, and thoughts about the experiment were elicited. A brief debriefing of all subjects followed, and each subject was given an opportunity to ask questions of the experimenter. A more extensive debriefing, which included an explanation and results of the experiment was carried out by mail at a later date.

RESULTS

Reliability of Dependent Measure

All TAT stories, 216 in all, were independently scored by the experimenter and another rater, both of whom were blind with regard to the experimental conditions. As indicated previously, the stories were scored for depression according to the manual developed by Welch et al. (1961). The inter-judge reliability for TAT depression was .793 for all 216 stories. The actual TAT scores used in the study are the mean scores averaged over the two raters.

Check for Subliminality of Stimuli

The mean number of correct identifications made by the group on the discrimination task was 4.97, a result not significantly different from chance (5 correct). In addition, only one subject correctly discriminated the stimuli at a rate that reached significance ($p < .05$), making eight correct identifications, itself a chance result. Furthermore, not one of the subjects reported seeing any more than flashes of light when looking into the tachistoscope. Thus, it is clear that whatever the effects of the various stimuli, there was no evidence of their being the result of partial cues of which the subject was aware.

Effects of Subliminal Stimuli

The results for the two groups (A and B) will be examined separately.

Group A

It will be recalled that the subjects in this group received the following conditions: (1) separation-individuation (MOMMY AND I ARE TWO); (2) guilt over autonomy (LEAVING MOM IS WRONG); and (3) a neutral, control condition (PEOPLE ARE TALKING). It was predicted that following exposure to the separation-individuation condition, when compared to the neutral condition, subjects would show a decrease in their level of depression as measured by both the modified DACL and TAT. It was also predicted that following exposure to the guilt over autonomy condition, as compared to the neutral condition, subjects would display an increase in depression on both their DACL and TAT.

Change scores, consisting of the difference between the baseline (pre-test) and critical (post-test) measures, were obtained for each condition, and a t-test for correlated groups was used to analyze the data. This allowed for the comparison of each experimental condition with the control condition, to determine if the conditions differed significantly from each other.

Table 2 compares the effects of the separation-individuation and control conditions. While the separation-individuation condition did not differ significantly from the control condition on the DACL,

Table 2

Mean Change Scores for Separation-Individuation and Control Conditions

	Separation- Individuation	Control	Difference	<u>SD</u> of Difference	<u>t</u>	<u>p</u> *
DACL	23.389	-17.667	41.056	453.922	0.38	ns
TAT	- 2.472	- 0.278	- 2.194	4.499	-2.07	.027

*p values are for a one-tailed test.

$t(17) = 0.38$, ns., there was a significant difference between the conditions on the TAT measure of depression, $t(17) = 2.07$, $p = .027$, 1-tailed. Thus, the hypothesis was supported for one of the dependent variables. The separation-individuation message led to a decrease in TAT depression, when compared to the neutral message.

Table 3 presents a similar comparison between the guilt over autonomy and control conditions. There was a significant difference between the two conditions on the DACL, $t(17) = 1.89$, $p = .038$, 1-tailed. On TAT depression, the guilt over autonomy condition led to increase in depression that approached significance, $t(17) = 1.33$, $p = .10$, 1-tailed. Again, the hypothesis was clearly supported for one of the dependent variables, and received partial support on the other measure.

It was further predicted that a group of subjects who scored high on introjective depression (high introjectives) would become significantly more depressed following exposure to the guilt over autonomy message than subjects who scored low on introjective depression (low introjective). The groups were divided on the basis of a median-split, and a t -test was used to analyze the data. A comparison of these two groups is summarized in Table 4. On the modified DACL, the two groups displayed a significant difference in depression following exposure to the guilt over autonomy condition, $t(16) = 1.94$, $p = .035$, 1-tailed. Thus, the high introjectives became significantly more depressed following exposure to the guilt over autonomy message than did the low introjectives, a finding in

Table 3

Mean Change Scores for Guilt Over Autonomy and Control Conditions

	Guilt Over Autonomy	Control	Difference	<u>SD</u> of Difference	<u>T</u>	<u>p</u> *
DACL	79.056	-17.667	96.722	216.910	1.89	.038
TAT	1.389	- 0.278	1.667	5.303	1.33	.10

*One-tailed test.

Table 4
Mean Change Scores for High and Low Introjectives on
Guilt Over Autonomy Condition

		<u>M</u>	<u>SD</u>	<u>t</u>	<u>p*</u>
DACL	High	188.778	181.630	1.94	.035
	Low	4.667	218.917		
<hr/>					
TAT	High	2.611	4.321	0.75	ns
	Low	0.722	6.251		

*One-tailed test.

the hypothesized direction. On the TAT, however, no significant difference between the groups was found, $t(16) = .075$, ns. In light of the significant difference between the high and low introjectives on the DACL, it was decided to further explore how each group responded to the guilt over autonomy condition when analyzed separately. As Table 5 indicates, those subjects who scored high on introjective depression became significantly more depressed after viewing the guilt over autonomy message than they did after receiving the control message as measured by both the DACL $t(8) = 3.12$, $p = .007$, 1-tailed, and the TAT, $t(8) = 1.81$, $p = .05$, 1-tailed. The low introjectives, on the other hand, displayed no change in depression following this condition on either dependent measure.

Group B

As previously stated, Group B received the following conditions: (1) loss (I AM LOSING MOMMY); (2) simple guilt-inducing (I AM STANDING WRONG); and (3) a neutral, control (PEOPLE ARE WALKING). It was predicted that following exposure to the loss condition, as compared to the control condition, subjects would display an increase in depression as measured by both the modified DACL and the TAT. It was also predicted that the simple guilt-inducing message would not be relevant to the dynamics of depression, and therefore, produce an effect that was significantly less than the guilt over autonomy message.

Change scores were again computed and a t -test for cor-

Table 5
Mean Change Scores for High and Low Introjectives on the
Guilt Over Autonomy and Control Conditions

	Guilt Over Autonomy	Control	Difference	<u>SD</u> Difference	<u>t</u>	<u>p</u> *
<hr/>						
High Introjectives						
DACL	141.889	-46.889	188.778	181.630	3.12	.007
TAT	1.556	- 1.056	2.611	4.321	1.81	.05
<hr/>						
Low Introjectives						
DACL	16.222	11.556	4.667	218.917	0.06	ns
TAT	1.222	0.500	0.722	6.251	0.35	ns

*One-tailed test.

related groups was utilized to analyze the data as was the case for Group A.

Table 6 compares the effects of the loss and control conditions. There was a lack of any significant difference on the DACL measure of depression, $t(17) = .087$, ns. No t -test was computed for this comparison on the TAT in that an observation of the mean difference between the two conditions showed that it was in the opposite direction than predicted.

A parallel comparison of the simple-guilt and control conditions is presented in Table 7. For neither dependent variable is there a significant difference between the conditions. The results of the comparison between the simple-guilt inducing condition and the guilt over autonomy condition is summarized in Table 9. In that those subjects who received these messages were in different groups, it was first necessary to demonstrate that the neutral, control messages were equivalent for the two groups. Table 8 reports the results of the comparison between the neutral, control message of Group A (PEOPLE ARE TALKING) and that of Group B (PEOPLE ARE WALKING). As indicated in Table 8, there is no difference between these two conditions on either the DACL, $t(34) = 0.22$, ns., or the TAT, $t(34) = 1.02$, ns. Since there is a lack of any difference between the two control conditions, a direct comparison between the two guilt conditions (when compared with their own control condition) can now be made. As Table 9 summarizes, although in the hypothesized direction, neither on the DACL, $t(34) = 1.19$, $p = .12$, or on the

Table 6
Mean Change Scores for Loss and Control Conditions

	Loss	Control	Difference	<u>SD</u> of Difference	<u>t</u>	<u>p</u> *
DACL	50.389	-2.944	53.333	260.457	0.87	ns
TAT	-2.306	0.861	-3.167	3.985	<0 ^a	

*One-tailed test.

^aSince t values were based on a one-tailed test, no t was computed after an examination of the means showed they were in the direction opposite of the prediction. A two-tailed test, however, yields a t of -3.37, p < .004.

Table 7
Mean Change Scores for Simple-Guilt and Control Conditions

	Simple- Guilt	Control	Difference	SD of Difference	<u>t</u>	<u>p</u>
DACL	0.944	-2.944	3.889	249.325	0.07	ns
TAT	1.000	0.861	0.139	3.110	0.19	ns

Table 8

Mean Change Scores for Group A and Group B Control Conditions

		<u>M</u>	<u>SD</u>	<u>t</u>	<u>P</u>
DACL	Talking (A)	-17.667	203.542	-0.22	ns
	Walking (B)	- 2.944	206.551		
TAT	Talking (A)	- 0.278	3.093	-1.02	ns
	Walking (B)	0.861	3.617		

Table 9

Mean Change Scores for Guilt Over Autonomy and Simple-Guilt
Conditions Compared to Control Conditions

		<u>M</u>	<u>SD</u>	<u>t</u>	<u>p*</u>
DACL	Guilt over autonomy	96.722	216.910	1.19	.12
	Simple-guilt	3.889	249.325		

TAT	Guilt over autonomy	1.667	5.303	1.05	.15
	Simple-guilt	0.139	3.110		

*One-tailed test.

TAT, $t(34) = 1.05$, $p = .15$, both 1-tailed tests, does the guilt over autonomy condition produce a significantly greater change in depression than does the simple guilt-inducing condition.

Additionally, it was predicted that a group who scored high on anaclitic depression (high anaclitics) would become significantly more depressed following exposure to the loss message than those scoring low on anaclitic depression (low anaclitics). The groups were divided on the basis of a median split, and a t -test was utilized to analyze the data. A comparison of these two groups is shown in Table 10. On the modified DACL, these groups did not significantly differ in depression following the presentation of the loss condition, $t(16) = 1.03$, $p = .16$, 1-tailed. On the TAT measure of depression, however, the high anaclitics displayed significantly more depression than the low anaclitics after viewing the loss message, $t(16) = 2.07$, $p = .028$, 1-tailed. This finding was in the hypothesized direction. Table 11 summarizes the comparison of the loss and control conditions for these two groups, when analyzed separately. Those subjects who scored high in anaclitic depression became more depressed following the loss condition (as compared to the control condition) as measured by the DACL at a level that just barely missed the .05 level of significance, $t(8) = 1.75$, $p = .059$, 1-tailed. The high anaclitics displayed a lack of significant change in TAT depression, $t(8) = 1.19$, ns. Those who scored low in anaclitic depression did not show any significant change in DACL depression following the loss condition when compared to the control condition, $t(8) = -.09$,

Table 10
 Mean Change Scores for High and Low Anaclitics on
 Loss Condition

		<u>M</u>	<u>SD</u>	<u>t</u>	<u>p*</u>
DACL	High	116.222	199.564	1.03	.16
	Low	- 9.556	308.564		
<hr/>					
TAT	High	- 1.389	3.489	2.07	.028
	Low	- 4.944	3.803		

*One-tailed test.

Table 11
 Mean Change Scores for High and Low Anacritics on the
 Loss and Control Conditions

	Loss	Control	Difference	<u>SD</u> of Difference	<u>t</u>	<u>p</u>
<hr/>						
High Anacritics						
DACL	71.778	-44.444	116.222	199.564	1.75	.059*
TAT	-1.778	- 0.389	- 1.389	3.489	-1.19	ns
<hr/>						
Low Anacritics						
DACL	29.000	38.556	- 9.556	308.918	-0.09	ns
TAT	-2.833	2.111	- 4.944	3.803	-3.90	.005**
<hr/>						

*One-tailed test.

**Two-tailed test.

ns. The low anaclitic group, however, became significantly less depressed following the loss message on the TAT, $t(8) = -.390$, $p = .005$.

Conscious Association Task

As indicated in the method chapter, at the conclusion of the experiment, the subjects were shown the critical and baseline stimuli and asked what each message meant to them. In this way, the conscious meanings of the stimuli were obtained for each subject. It was felt that the message MOMMY AND I ARE TWO could be construed to mean different things to different subjects. An examination of the subjects' associations to this message suggested that the subjects could be divided into those who responded with associations that connoted a positive "togetherness" and those whose associations conveyed a separateness. (An independent rater evidenced 100 percent agreement with the experimenter's evaluation of these responses.) Examples of "togetherness" responses to the MOMMY AND I ARE TWO message were: "Going shopping together. Spending a day together"; "Good friends. We talk a lot and like to go shopping together and do stuff"; "There's understanding and care. They are very close and understand each others feelings, like two best friends." Examples of "separateness" responses were: "It would be like a mother and a daughter. It would be to make sure people knew they were two separate people because people were always comparing them"; "Different in views of what I think is right and wrong"; "We're two separate individuals. We each have our own needs and could live independently. We're two

different types"; "Two separate people. She needs someone to hold onto, and I don't want to hold on." It was felt that these two groups might differ in their response to the MOMMY AND I ARE TWO message considering the divergence in meaning this message held for the two groups. A post-hoc analysis was made, with the results presented in Table 12. On the TAT, there was a lack of any difference between the two groups, $t(16) = -0.23$, ns., with both groups contributing relatively equally to the significant main effect of the separation-individuation condition. On the DACL, however, the two groups produced quite discrepant results that reached a $p < .10$, $t(16) = -1.79$, $p = .092$. Thus, on the DACL those whose conscious associations indicated a "togetherness" response to the MOMMY AND I ARE TWO message tended to respond to this message by a reduction in depression when it was presented subliminally compared to those whose associations suggested a "separateness" response.

Table 12
Comparison of "Togetherness" and "Separateness" Responders
for Separation-Individuation Condition

		<u>M</u>	<u>SD</u>	<u>t</u>	<u>p**</u>
DACL	Togetherness	-139.222	512.932	-1.79	.09
	Separateness	221.333	318.780		
<hr style="border-top: 1px dashed black;"/>					
TAT	Togetherness	- 2.444	5.126	-0.23	ns
	Separateness	- 1.944	4.073		

**Two-tailed test.

DISCUSSION

This study investigated the effects of several subliminal stimuli on subjects' mood in an effort to shed some light on the psychodynamics of depression. Specifically, the relevance of guilt over autonomous strivings, fear of object loss, and the separation-individuation process to depression was explored. Additionally, this study attempted to determine whether subgroups of depressives, differentiated on the basis of their scores on measures of anaclitic and introjective depression (Blatt, 1976) would respond differently to specific subliminal stimuli.

In discussing the results of this investigation, we first need to interpret the findings regarding the specific hypotheses. Secondly, the implications of the results need to be investigated and their relationship with related research explored. Finally, the possible directions of future research will emerge from these discussions.

Of the six hypotheses tested, one received direct experimental support, three received partial support, and two received no support. As will be discussed, the results of this study support the continued use of the "subliminal psychodynamic activation" method for testing psychoanalytic theory. It will become evident, however, that certain qualifications and specifications are necessary in performing this kind of research.

The hypothesis of the guilt over autonomy condition leading to an increase in depressive affect received fairly strong support. When presented subliminally, the LEAVING MOM IS WRONG message led to an increase in depression on both the modified DACL ($p = .038$) and TAT ($p = .10$). Although the latter result did not reach the .05 level of significance, taken together with the findings on the DACL, these results can be seen as supporting this hypothesis. Thus, the results of Dauber's (Note 15) previous investigation appear to have been replicated. In his earlier study, Dauber found that the subliminal message LEAVING MOM IS WRONG led to a significant rise in depression as measured by the modified DACL. On the same instrument, a similar result was obtained in the current investigation, while a trend toward increased depression was found on the TAT. Why the results were not as strong on the TAT is not very clear. Certainly, it is a less precise measure, and not as objective as the DACL. Scoring for TAT depression, however, achieved fairly high interjudge reliability (.793), and the measure has been shown to be sensitive toward changes in mood in this and other studies. Perhaps utilizing more than one TAT card, with refresher flashes in between might allow for more precise measurement. Clearly, more research on the TAT as a valid and reliable instrument for measuring depression should be performed. Nevertheless, the findings do support those writers who emphasize the importance of guilt and dependence in depression (Arieti, 1962; Bemporad, 1971; Slipp, 1976). The depressed individual is seemingly, extremely sensitive to feelings of guilt, especially in relation to autonomous strivings and independent achievement. The families of depressives appear

to foster feelings of omnipotence, which are often so overwhelming that strivings for independence are often interpreted by them to be an aggressive act (Arieti & Bemporad, 1978; Bemporad, 1971; Slipp, 1976; Weiss, Note 1). Consequently, the depressive feels more guilty, and subsequently, more depressed.

Two other hypotheses concerned themselves with guilt, and thus, are important to the above discussion. Firstly, it was felt that a group who scored high on introjective depression would be extremely sensitive to guilt, and thus, respond to the guilt over autonomy message with a significantly greater increase in depression than those who scored low in introjective depression. Again, this hypothesis was supported on the DACL ($p = .035$), but not on the TAT. As before, the TAT does not appear to be as sensitive as the modified DACL in detecting changes in mood. The results on the DACL, however, do clearly support the work of Blatt and his colleagues (1976). On the basis of their Depressive Experiences Questionnaire (DEQ), a group who scored high on their self-criticism factor became significantly more depressed than a group who scored low on this factor following a guilt-inducing message. This measure is sensitive primarily to guilt and self-blame, and consistent with the introjective dimension of depression. One could, therefore, predict, on the basis of introjective (self-criticism) scores, how subjects would respond to a guilt-inducing message.

One other finding demonstrates this most unequivocally. When the groups were divided into high and low introjectives, the high

introjectives became significantly more depressed after viewing the guilt over autonomy message on both the DACL ($p = .007$) and the TAT ($p = .05$). The low introjectives displayed no change on either message. Thus, we can see that those individuals who score high on the self-criticism factor of the Depressive Experiences Questionnaire are extremely sensitive to feelings of guilt, especially over autonomous strivings. This result is quite compatible with the formulation advanced by Blatt (1974) on introjective depression, which involves strong guilt feelings, low self-esteem, and excessive vulnerability to failure, criticism, and blame.

The second hypothesis related to guilt concerns the simple guilt-inducing message, I AM STANDING WRONG. This condition was used to test the specificity of the guilt in depressed individuals, something that was not done in the previous study by Dauber (Note 15). This condition thus allows us to specify whether it is guilt in general or guilt over autonomous strivings that is crucial in depression

The simple guilt-inducing message did not differentiate itself from the neutral, control message on either dependent measure, and thus, its relevance to the dynamics of depression can certainly be questioned. That is, it does not appear to be enough just to have the word "wrong" appear in a subliminal message to increase depression; some specific relevant "guilty" act seems necessary. In comparing the simple guilt message with the guilt over autonomy message, it is noteworthy that although in the right direction, for neither the DACL ($p = .12$) or the TAT ($p = .15$) does the difference between the two

conditions achieve statistical significance. It is thus necessary to apply some caution in interpreting the results of the guilt over autonomy condition. A review of the data, however, can adequately explain the lack of difference. On both measures, the simple guilt message led to very slight increases in depression. Although these increases were non-significant, they were enough to produce a lack of a difference in the simple guilt-autonomy guilt comparison, and thus eliminate an effect. In fact, for some extremely guilt-ridden individuals, the simple guilt-inducing may be enough to intensify depressed feelings. A scan of the data suggests that this may indeed be the case. Certainly, more research is necessary in this area.

There was a clear lack of support for the hypothesis concerned with object loss. On neither the DACL or the TAT did subjects show heightened depression following the presentation of the subliminal loss message. This finding replicates that of Varga (1973), who reported a lack of any increase in depression following a loss condition (the verbal message I HAVE LOST MOMMY accompanied by a child crying over an open coffin, in which a woman lies). In fact, on the TAT, there was a highly significant finding in the opposite direction than predicted ($p = .004$). That is, subjects displayed a significant decrease in TAT depression following the I AM LOSING MOMMY message. In trying to interpret these findings, several possible explanations appear plausible. Perhaps, the most obvious interpretation is that the fear of object loss is not relevant to depression. This conclusion would be directly counter to those researchers and theorists who

advance the importance of object loss in the dynamics of depression (Bowlby, 1980; Freud, 1917; Rado, 1927; Rochlin, 1965). Several pieces of data suggest that this conclusion is not warranted.

The most convincing evidence against concluding that fear of object loss is not relevant to depression lies in the data obtained in anaclitic depression. There was a significant difference between the high and low anaclitics on the TAT following the loss condition ($p = .028$). That is, those who scored high on anaclitic depression showed significantly more depression than those who scored low on this measure following the subliminal loss message. Therefore, we can see that for those individuals who are most sensitive to a threat of losing a love object, the loss message proved to be most relevant. This is even more clearly demonstrated in how these two groups responded individually to the loss condition. The high anaclitics became more depressed on the DACL at a level that just barely missed the .05 level of significance ($p = .059$). The low anaclitic group, on the other hand, became significantly less depressed on the TAT following the loss message ($p = .005$). It appears that it is not the loss message per se that is not relevant to depression, but rather, this message has relevance that manifests itself in opposite directions for different subgroups of depressives.

In fact, it would seem that there may be something gratifying about the loss condition to those who scored low on anaclitic depression. In other words, it is possible that for this particular group, not only does an implied object loss involving "mommy" not exacerbate

pathology, but it actually alleviates it. For those individuals who are not sensitive to threat of object loss (low anaclitics), "losing mommy" may somehow be gratifying. Perhaps, unconsciously, this message implies separateness, autonomy, and growth to this group, in much the same way as MOMMY AND I ARE TWO does. Certainly, more research is needed in this area. What is clear, however, is that depression does not appear to be a unitary phenomenon. Rather, subgroups of depressives should be distinguished for more clarity in research.

Of course, the most convincing evidence for a differentiation of introjective and anaclitic depressives in terms of how they responded to the guilt and loss messages would be a direct comparison of those who scored high in both groups. If a group that scored high on anaclitic depression reacted to the subliminal loss condition with increased depression, but did not become more depressed following the guilt over autonomy condition, we would have convincing support for the importance of fear of object loss, and relative lack of importance of guilt for this subgroup of depressives. Likewise, if the group that scored high on introjective depression reacted to the guilt over autonomy condition with a rise in depression that was not evident in response to the loss condition, a parallel conclusion could be reached. Namely, that for this subgroup, guilt over autonomy is more central to their depression than fear of object loss. Unfortunately, this comparison cannot be made. A review of subjects' scores on these two measures reveals that 67 percent of those who scored high on introjective depression also scored high on anaclitic depression. The

remaining group would be much too small to use as a basis for a meaningful comparison.

The fact that there appears to be a group that has features of both anaclitic and introjective depression is consistent with Blatt's (Blatt et al., 1976) findings. Although he was able to separate these dimensions of depression in terms of stable factors on the DEQ, he reported that these two factors are not mutually exclusive, and a "compounded" form of depression, containing elements of both anaclitic and introjective depression clearly exists. In fact, Blatt argues that "this combination of the dependency of anaclitic depression with the guilt of introjective depression may be particularly prevalent in clinical samples." As was the case in the present study, Blatt (Blatt et al., 1979) found that a substantial percentage of subjects scored high on both anaclitic and introjective depression.

As we can see, an ample population needs to be given the Depressive Experiences Questionnaire so two distinct groups can emerge. In this way, an anaclitic group can be directly compared to an independent, introjective group, and the psychodynamics underlying these two dimensions of depression can be more clearly enunciated.

Another point concerning the loss message needs to be made. Litwack et al. (1979) found that only non-defended subjects responded to the I AM LOSING MOMMY message with increased pathology. Subjects who responded defensively to this stimulus when it was presented overtly actually evidenced a decrease in pathology. Likewise, several

researchers (Bach & Klein, 1957; Eagle, 1962) have reported that defensive persons tend to be less overtly responsive to subliminal stimuli than non-defended subjects. Varga (note 14) found that the loss stimulus generated the concurrent presence of both depressive and hypomanic elements. It is thus conceivable that the loss message in this current investigation produced a mood state characterized by both increased depression and increased defenses against depression. Future research in depression may therefore want to analyze the TAT for hypomanic elements as well as examine the conscious associations to the stimuli in an effort to determine the degree of defensiveness present.

Finally, it is noteworthy that the loss message (as did the other messages) concerned itself with the mother. Some recent research (Schwartz & Zuroff, 1979) suggested that the role of the father may be of greater significance in regard to daughter's vulnerability to depression. Making note of a finding (Zuroff, 1978) that a high percentage of the episodes of depression in college females were precipitated by the disruption of a heterosexual relationship, Schwartz and Suroff postulated that the woman vulnerable to depression is very dependent upon approval from men, and consequently, become increasingly disposed toward depression when relationships with men are severed. They hypothesize that this situation evolves from the combination of conflict between the parents and dominance by the father. This, in turn, leads to isolation from mother, exaggerated dependence upon father's love and vulnerability to his moods. If the father is incon-

sistent in his love, then the daughter's generalized expectancies for love are rendered highly unstable and fluctuate in response to loss.

In view of the above discussion, it is quite possible that female depressives may be more sensitive to a loss involving the father. This might account for the lack of an increase in depression following the I AM LOSING MOMMY stimulus for the group most susceptible to object loss (high anacritics). Future research should explore the effects of a message concerning loss of the father such as I AM LOSING DADDY on female depressives.

The final hypothesis concerned itself with the separation-individuation process. The hypothesis that the subliminal message MOMMY AND I ARE TWO would be gratifying, and thus lead to a decrease in depression, received partial support. A significant decrease was found in TAT depression following this condition ($p = .027$), however, such an effect was not found on the DACL measure of depression.

Why the hypothesis received support on one of the dependent measures and not the other is not very clear. It is quite possible that the answer lies in the nature of the instruments itself, and what they measure. It is conceivable that these two measures are tapping different aspects of depression. Certainly the TAT, being a projective test, assesses a "deeper" and less direct level of depression than a mood scale. Perhaps then, the fantasy stimulated by the MOMMY AND I ARE TWO message was gratifying only at a preconscious level, and thus, not assessable by a conscious mood scale. In that subliminal

effects are subtle and not robust, a projective technique that contains a lesser amount of structure might be the most sensitive to them. But, why then did the guilt over autonomy stimulus produce the opposite effect on the dependent measures, with the mood scale displaying more sensitivity to changes in depressed affect? The answer to this is still quite clouded, and obviously further exploration of methods of assessment in subliminal research is most definitely needed.

It may be argued that perhaps the change in depression was merely a result of differences in "depressive-pull" that the various TAT cards have. The changes in depression found would then be not real changes, but only an "artifact" of the instrument itself. This possibility was anticipated, and therefore, the pairs of cards were alternatively presented as either the pre-test or post-test measure. This procedure should have balanced out the "pull" of the cards. The only remaining possibility would be some kind of ordering effect. Namely, that when a certain card follows the other it changes the pull of the card. Although not very plausible, an ordering effect is a possibility, and therefore, future research might attempt to include controls for such an effect.

Assuming that this result is not an artifact, the significant reduction in TAT depression found following the separation-individuation condition supports the hypothesis that the MOMMY AND I ARE TWO message would be gratifying, and consequently, result in an alleviation of depression. This finding leads to several questions: Firstly, what

was gratifying about this message?; secondly, what does it tell us about depression?; and finally, how does it relate to the research carried out by Silverman and others on the symbiotic gratification fantasy?

The finding that the MOMMY AND I ARE TWO message had an ameliorative effect is consistent with the research of Mendelsohn (note 10), who found that this message led to a reduction in both thought disorder and nonverbal behavioral pathology in male schizophrenics. Moreover, the MOMMY AND I ARE TWO message proved to be more therapeutic than the MOMMY AND I ARE ONE message for the population tested. Mendelsohn postulated that the subliminal message activated a fantasy of a close, positive relationship with mother, while concurrently providing some safeguards against the dangers of loss of self-object boundaries as well as the loss of the primary relationship. In this way, the "twoness" message certainly appears to provide some of the same gratifications as the "oneness" message. Additionally, the MOMMY AND I ARE TWO message serves developmental needs that are not evident in the "oneness" message in that it implies a relationship with mother of greater differentiation.

Looking at the work of Mahler (1966, 1979) we can easily hypothesize why the MOMMY AND I ARE TWO message had an ameliorative effect on depression. In their work on the psychological birth of the infant, Mahler and her co-workers (1975) proposed four subphases of the separation-individuation process leading from symbiosis to the attainment of object constancy. This process is one of "the child's

achievement of a separate functioning in the presence and emotional availability of the mother." From the state of undifferentiation, the infant becomes dimly aware of a need-satisfying other (mother). At this stage of symbiosis, however, the infant sees himself and his mother formed in a "dual unity" in which there is one common boundary surrounding them. These two separate individuals are thus perceived by the infant to be a "single omnipotent system."

Within a few months, the "hatching process" begins and a gradual expansion away from symbiosis with mother takes place. As Mahler (1972) articulated, the very nature of this process poses continuous "minimal threats of object loss." With adequate love and acceptance, the infant will gradually recognize and enjoy his individual autonomy. The separation-individuation process is achieved "through the predominance of pleasure in separate functioning." The degree of pleasure in independent and autonomous functioning is dependent upon the child's success in attaining his mother's interest and participation in his activity. We can thus see how essential the emotional availability of the mother is to successful separation-individuation. As the infant develops the capacity for locomotion, he constantly returns to the mother for "emotional refueling."

Concomitant with the greater awareness of separateness and increasingly clear differentiation of self and object representation of the rapprochement subphase, is the renewed fear of object loss. Aware that he is no longer part of a dual unit, the infant must give up the delusion of a symbiotic omnipotence. If the frustrations and

anxieties associated with separateness become too great, fantasies of an ideal symbiotic state with the all-good mother may be activated. This unconscious fantasy may be recapitulated throughout life, as several authors argued (Searles, 1966; Silverman, 1979). In fact, it is the activation of this symbiosis fantasy that produces the ameliorative effects of the MOMMY AND I ARE ONE message reported by several authors (see Silverman, 1979 for a review).

Along with this longing for the ideal state of oneness, there is an equal desire for individuation (and struggle against both). As Mahler (1972) stated: "One could regard the entire life cycle as constituting a more or less successful process of distancing from and introjection of the lost symbiotic mother."

From the above discussion, it would appear that although quite gratifying, the symbiotic gratification fantasy may not be the most gratifying, at least for the majority of individuals. Silverman (1979) has reported that there is a substantial percentage of individuals for whom the symbiosis message did not prove therapeutic. In fact, the symbiotic gratification fantasy may have maladaptive consequences when it either reinforces symbiotic fixation and prevents individuation and separation, or when it produces a total, rather than partial merger of self- and object-representations. Silverman (1978) has consistently argued that ameliorative effects are only found when the symbiosis message produces a partial merger, while still allowing for some individuation.

Weiss (Note 1) and his co-workers wrote most individuals are powerfully motivated to achieve certain critical developmental goals, such as individuation, autonomy, the overcoming of omnipotent ideation, and control over impulses, affect, and guilt. A child is unable to attain these goals because of certain unconscious pathogenic beliefs as to what the consequences of achieving them might be. Thus, it can be argued that the individual is motivated to give up his symbiotic fantasy, but may be unable to do so. Indeed, several authors (Rubinfine, 1968; Slipp, 1976; Smith, 1971) pointed to the depressive's inability to break away from a symbiotic pattern and achieve separation-individuation and autonomy.

It is therefore proposed here that the separation-individuation message MOMMY AND I ARE TWO activates a fantasy that is especially gratifying in depressed individuals. Not only does it activate a fantasy of a close, loving nurturant relationship and provide reassurance against feared object loss, but it also stimulates a more adaptive and developmentally advanced relationship with the primary object than does the symbiosis message. MOMMY AND I ARE TWO implies separation without harm or loss; togetherness and closeness without merger.

An examination of the conscious associations to the MOMMY AND I ARE TWO message will lend further support for the above proposal, as well help clarify the meaning of this stimulus to the subjects. As reported in the last chapter, the subjects were divided into two groups depending on their associations to the MOMMY AND I ARE TWO

stimulus when presented supraliminally. Those subjects whose conscious associations made reference to a "togetherness" tended to respond to this message by a reduction in depression when it was presented subliminally compared to those whose associations suggested a "separateness" response on the DACL ($p < .10$). There was a lack of any difference between these groups on the TAT, with both groups contributing relatively equally to the significant effect. There is some data, therefore, that suggests that this message may be more gratifying for those individuals who consciously perceive it to imply a relationship of closeness and togetherness, than for those who feel it implies separateness.

The division of subjects into these two groups is, to be sure, arbitrary and certainly other groups could be differentiated. It is quite noteworthy, however, how overwhelmingly positive the associations to this message tended to be, especially for those whose associations connoted a close relationship. Furthermore, even references to being separate did not imply a separation from, or loss of, mother. One subject stated the possible fantasy gratified by this stimulus as she said: "The togetherness you feel when you are close to your mother, but you're still able to keep your independence. It's not like you're one person." The separation-individuation process can be successfully completed, while still maintaining a close relationship with mother. Object loss does not occur, guilt over possible destructive acts is not present, nor is merger the only solution in the

fantasy evoked by the MOMMY AND I ARE TWO message, and thus, it is very gratifying.

Mendelsohn (note 10) made a similar conclusion after reviewing the associations of his subjects to the "twoness" message. He found many more positive elements in the associations to the "twoness" message than the "oneness" message. Furthermore, he found similar themes of early childhood, oral gratifications, and being cared for in the associations to each message. He also found associations of separateness without separation from "mommy." Mendelsohn felt that the message elicited images of closeness, well-being, along with a safety against loss of identity. He concluded that the MOMMY AND I ARE TWO stimulus may have provided some gratification of symbiotic wishes in a much safer, and less threatening manner than the "oneness" message.

In sum, we can see that the MOMMY AND I ARE TWO stimulus did tend to be gratifying and reduce feelings of depression, especially for a certain sub-group of individuals. Further investigations into the "meaning" of this message as well as the fantasies gratified by this message need to be undertaken. It is apparent that an individual's responses to subliminal stimuli are a function of the meaning that they have for that particular individual, and therefore, it should be considered in doing subliminal research. The relationship between the separation-individuation message and the symbiosis message (MOMMY AND I ARE ONE) in depression also needs to be further explored. It is extremely possible that the "twoness" message may be gratifying

for a certain subgroup, while the "oneness" stimulus more gratifying for another. It is quite conceivable that the "anaclitic" group, for example, might respond more favorably to the "oneness" message, while for the "introjective" group, the "twoness" stimulus may be more therapeutic. Certainly this would make sense in terms of developmental considerations.

One final point needs to be made in regard to the implications of this reasearch for psychotherapy. It appears that depressed individuals are strongly motivated by unconscious guilt, especially over exercising autonomy and independent strivings. Unconscious guilt, thus, perpetuates attachment to infantile objects, such as a dominant other (Arieti & Bemporad, 1978). The patient comes to therapy motivated to overcome his unconscious guilt and master his conflicts (Sampson, 1976). The therapist needs to provide an atmosphere of safety, whereby the patient is assured that he may relinquish his infantile object relations without causing harm to the therapist, and without becoming overwhelmed by guilt toward his parents for his autonomous strivings. The therapeutic relationship that is established perhaps can be seen as analogous to MOMMY AND I ARE TWO, whereby the patient views the therapist as emphatic, interested, and encouraging of independent activities.

SUMMARY

To recapitulate, this study investigated, through laboratory research, the psychodynamics of depression. Specifically, the separation-individuation process, fears of object loss, and guilt over autonomous strivings were examined as to their relevance to depressive affect and experience. This investigation made use of the paradigm and method introduced by Silverman (summarized in Silverman, 1976) and termed "subliminal psychodynamic activation." This approach has been utilized to experimentally study and test psychoanalytic theories of psychopathology by the use of subliminal stimulation. With this method, unconscious wishes, fears, drives, and fantasies can be manipulated, and the effects of this manipulation explored, without changing their "status" to one of consciousness.

This current investigation explored the effects of four subliminal messages on depression-prone female college students. The stimuli, all consisting of a verbal message and accompanying picture, included the following: (1) Loss condition (I AM LOSING MOMMY); (2) Guilt Over Autonomy condition (LEAVING MOM IS WRONG); (3) Simple Guilt-Inducing condition (I AM STANDING WRONG); and (4) Separation-Individuation condition (MOMMY AND I ARE TWO).

The subjects were randomly assigned to two groups of 18 subjects each. One group received the separation-individuation, guilt over

autonomy, and neutral, control conditions, and the other group received the simple guilt-inducing, loss, and control conditions. The conditions were presented in counterbalanced order, and each subject served as her own control. Additionally, subjects were divided into high and low anaclitic and introjective groups on the basis of scores on the Depressive Experiences Questionnaire (Blatt et al., 1976). Change scores were computed based on the difference between baseline and critical measures on a modified DACL and TAT.

Of the six hypotheses tested, one received strong support, three received partial support, and two received no support. The LEAVING MOM IS WRONG message, designed to activate feelings of guilt over autonomous strivings led to a significant increase in depression on the DACL and a trend toward heightened depression on the TAT. The data therefore, supported the notion of the importance of guilt over autonomous gratification in depression. A group who scored high on introjective depression became significantly more depressed following the LEAVING MOM IS WRONG message on both dependent measures. This group appeared to be extremely sensitive to feelings of guilt, especially over independent functioning. Furthermore, the high introjective group was able to be differentiated from a low introjective group on the basis of their response to this message on the DACL. The hypothesis that the guilt over autonomy message would lead to a significantly greater increase in depression than the simple guilt-inducing message I AM STANDING WRONG was not supported. It was felt that the lack of a significant effect was produced by several extremely

guilt-sensitive individuals, who responded to the simple guilt message with increased depression.

The message I AM LOSING MOMMY, designed to activate fears and fantasies of object loss, did not lead to the hypothesized increase in depression on either the DACL or TAT. A group that scored high on anaclitic depression, and thus, most sensitive to a threat of object loss, however, became more depressed on the DACL following the loss message. The low anaclitic group, in fact, became less depressed following the loss condition implying that there may have been something gratifying in this message for this group. It is evident from the data that depression is not a unitary phenomenon, and subgroups need to be distinguished in research.

The final hypothesis to be considered concerned the MOMMY AND I ARE TWO message, designed to activate a fantasy of a successful separation-individuation process. As hypothesized, this message led to significant reduction in depression on one of the dependent measures (TAT), and thus, appears to be gratifying to the depressed individual. This message appears to produce a fantasy of a close, loving relationship, while at the same time protecting against object loss and loss of boundaries.

In conclusion, it seems apparent that stimuli of appropriate content, when presented subliminally, can either exacerbate or alleviate depressive mood. These results lend further support for the use of subliminal psychodynamic activation in investigating psycho-

pathology. Suggestions have been proposed for future research including differentiating specific subgroups of depressives and consideration of the meanings of the stimuli for the subjects.

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APPENDIX A

Table 13
Baseline and Critical Data--DACL

Condition	<u>M</u>	<u>SD</u>
<u>Group A</u>		
Separation-Individuation		
Baseline	485.17	239.54
Critical	508.56	201.00
Guilt over Autonomy		
Baseline	466.44	215.37
Critical	545.50	202.54
Control		
Baseline	537.06	196.16
Critical	519.38	234.29
<u>Group B</u>		
Loss		
Baseline	460.94	255.32
Critical	511.33	258.98
Simple-guilt		
Baseline	493.94	291.13
Critical	494.89	239.37
Control		
Baseline	517.72	320.15
Critical	514.78	299.24

Table 14
Baseline and Critical Data--TAT

Condition	<u>M</u>	<u>SD</u>
<u>Group A</u>		
Separation-Individuation		
Baseline	4.97	2.41
Critical	2.50	2.18
Guilt over Autonomy		
Baseline	2.44	1.63
Critical	3.83	2.84
Control		
Baseline	3.28	2.64
Critical	3.00	2.09
<u>Group B</u>		
Loss		
Baseline	4.64	2.74
Critical	2.33	2.01
Simple-guilt		
Baseline	2.83	2.11
Critical	3.83	2.56
Control		
Baseline	2.97	1.91
Critical	3.83	3.29

APPENDIX B

On this questionnaire are groups of statements. Please read the entire group of statements in each category. Then pick out the one statement in that group which best described the way you feel today, that is, right now! Circle the letter on the answer sheet that corresponds to the statement you have chosen. If several statements in the group seem to apply equally well, circle each one.

1.
 - a. I do not feel sad
 - b. I feel sad or blue
 - c. I am blue or sad all the time and I can't snap out of it
 - d. I am so sad or unhappy that I can't stand it
2.
 - a. I am not particularly pessimistic or discouraged about the future
 - b. I feel discouraged about the future
 - c. I feel I have nothing to look forward to
 - d. I feel that the future is hopeless and that things cannot improve
3.
 - a. I do not feel like a failure
 - b. I feel I have failed more than the average person
 - c. As I look back on my life, all I can see is a lot of failures
 - d. I feel I am a complete failure as a person (parent, husband, wife)
4.
 - a. I am not particularly dissatisfied
 - b. I don't enjoy things the way I used to
 - c. I don't get satisfaction out of anything anymore
 - d. I am dissatisfied with everything
5.
 - a. I don't feel particularly guilty
 - b. I feel bad or unworthy a good part of the time
 - c. I feel quite guilty
 - d. I feel as though I am very bad or worthless
6.
 - a. I don't feel I am being punished
 - b. I have a feeling that something bad may happen to me
 - c. I feel I am being punished or will be punished
 - d. I feel I deserve to be punished
7.
 - a. I don't feel disappointed in myself
 - b. I am disappointed in myself
 - c. I am disgusted with myself
 - d. I hate myself
8.
 - a. I don't feel I am any worse than anybody else
 - b. I am critical of myself for my weaknesses or mistakes
 - c. I blame myself for my faults
 - d. I blame myself for everything bad that happens
9.
 - a. I don't have any thoughts of harming myself
 - b. I feel I would be better off dead
 - c. I have definite plans about committing suicide
 - d. I would kill myself if I had the chance

10.
 - a. I don't cry any more than usual
 - b. I cry more now than I used to
 - c. I cry all the time now. I can't stop it
 - d. I used to be able to cry but no I can't cry at all even though I want to
11.
 - a. I am no more irritated now than I ever am
 - b. I get annoyed or irritated more easily than I used to
 - c. I feel irritated all the time
 - d. I don't get irritated at all at the things that used to irritate me
12.
 - a. I have not lost interest in other people
 - b. I am less interested in other people than I used to be
 - c. I have lost most of my interest in other people and have little feeling for them
 - d. I have lost all of my interest in other people and don't care about them at all
13.
 - a. I make decisions about as well as ever
 - b. I try to put off making decisions
 - c. I have great difficulty in making decisions
 - d. I can't make any decisions at all anymore
14.
 - a. I don't feel I look any worse than I used to
 - b. I am worried that I am looking old or unattractive
 - c. I feel that there are permanent changes in my appearance and they make me look unattractive
 - d. I feel that I am ugly or repulsive looking
15.
 - a. I can work about as well as before
 - b. It takes extra effort to get started at doing something
 - c. I have to push myself very hard to do anything
 - d. I can't do any work at all
16.
 - a. I can sleep as well as usual
 - b. I wake up more tired in the morning that I used to
 - c. I wake up 1-2 hours earlier than usual and find it hard to get back to sleep
17.
 - a. I don't get any more tired than usual
 - b. I get tired more easily than I used to
 - c. I get tired from doing anything
 - d. I get too tired to do anything
18.
 - a. My appetite is no worse than usual
 - b. My appetite is not as good as it used to be
 - c. My appetite is much worse now
 - d. I have no appetite at all anymore

19.
 - a. I haven't lost much weight, if any, lately
 - b. I have lost more than 5 pounds
 - c. I have lost more than 10 pounds
 - d. I have lost more than 15 pounds
20.
 - a. I am no more concerned about my health than usual
 - b. I am concerned about aches and pains or upset stomach or constipation
 - c. I am so concerned with how I feel or what I feel that it's hard to think of much else
 - d. I am completely absorbed in what I feel
21.
 - a. I have not noticed any recent change in my interest in sex
 - b. I am less interested in sex than I used to be
 - c. I am much less interested in sex now
 - d. I have lost interest in sex completely

DEPRESSIVE EXPERIENCES QUESTIONNAIRE*

Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree and to what extent. If you strongly agree, circle 7; if you strongly disagree, circle 1; if you feel somewhere in between, circle any one of the numbers between 1 and 7. The midpoint, if you are neutral or undecided, is 4.

	Strongly Disagree						Strongly Agree
1. I set my personal goals and standards as high as possible.	1	2	3	4	5	6	7
2. Without support from others who are close to me, I would be helpless.	1	2	3	4	5	6	7
3. I tend to be satisfied with my current plans and goals, rather than striving for higher goals.	1	2	3	4	5	6	7
4. Sometimes I feel very big, and other times I feel very small.	1	2	3	4	5	6	7
5. When I am closely involved with someone, I never feel jealous.	1	2	3	4	5	6	7
6. I urgently need things that only other people can provide.	1	2	3	4	5	6	7
7. I often find that I don't live up to my own standards or ideals.	1	2	3	4	5	6	7
8. I feel I am always making full use of my potential abilities.	1	2	3	4	5	6	7
9. The lack of permanence in human relationships doesn't bother me.	1	2	3	4	5	6	7
10. If I fail to live up to expectations, I feel unworthy.	1	2	3	4	5	6	7
11. Many times I feel helpless.	1	2	3	4	5	6	7
12. I seldom worry about being criticized for things I have said or done.	1	2	3	4	5	6	7
13. There is a considerable difference between how I am now and how I would like to be.	1	2	3	4	5	6	7

	Strongly Disagree					Strongly Agree
14. I enjoy sharp competition with others	1	2	3	4	5	6 7
15. I feel I have many responsibilities that I must meet.	1	2	3	4	5	6 7
16. There are times when I feel "empty" inside	1	2	3	4	5	6 7
17. I tend not to be satisfied with what I have.	1	2	3	4	5	6 7
18. I don't care whether or not I live up to what other people expect of me.	1	2	3	4	5	6 7
19. I become frightened when I feel alone.	1	2	3	4	5	6 7
20. I would feel like I'd be losing an important part of myself if I lost a very close friend.	1	2	3	4	5	6 7
21. People will accept me no matter how many mistakes I have made.	1	2	3	4	5	6 7
22. I have difficulty breaking off a relationship that is making me unhappy.	1	2	3	4	5	6 7
23. I often think about the danger of losing someone who is close to me.	1	2	3	4	5	6 7
24. Other people have high expectations of me.	1	2	3	4	5	6 7
25. When I am with others, I tend to devalue or "undersell" myself.	1	2	3	4	5	6 7
26. I am not very concerned with how other people respond to me.	1	2	3	4	5	6 7
27. No matter how close a relationship between two people is, there is always a large amount of uncertainty and conflict.	1	2	3	4	5	6 7
28. I am very sensitive to others for signs of rejection.	1	2	3	4	5	6 7
29. It's important for my family that I succeed.	1	2	3	4	5	6 7

	Strongly Disagree				Strongly Agree		
30. Often, I feel I have disappointed others.	1	2	3	4	5	6	7
31. If someone makes me angry, I let him (her) know how I feel.	1	2	3	4	5	6	7
32. I constantly try, and very often go out of my way, to please or help people I am close to.	1	2	3	4	5	6	7
33. I have many inner resources (abilities, strengths).	1	2	3	4	5	6	7
34. I find it very difficult to say "no" to the requests of friends.	1	2	3	4	5	6	7
35. I never really feel secure in a close relationship.	1	2	3	4	5	6	7
36. The way I feel about myself frequently varies: there are times when I feel extremely good about myself and other times when I see only the bad in me and feel like a total failure.	1	2	3	4	5	6	7
37. Often, I feel threatened by change	1	2	3	4	5	6	7
38. Even if the person who is closest to me were to leave, I could still "go it alone."	1	2	3	4	5	6	7
39. One must continually work to gain love from another person: that is, love has to be earned.	1	2	3	4	5	6	7
40. I am very sensitive to the effects my words or actions have on the feelings of other people.	1	2	3	4	5	6	7
41. I often blame myself for things I have done or said to someone.	1	2	3	4	5	6	7
42. I am a very independent person.	1	2	3	4	5	6	7
43. I often feel guilty.	1	2	3	4	5	6	7
44. I think of myself as a very complex person, one who has "many sides."	1	2	3	4	5	6	7

	Strongly Disagree					Strongly Agree
45. I worry a lot about offending or hurting someone who is close to me.	1	2	3	4	5	6 7
46. Anger frightens me.	1	2	3	4	5	6 7
47. It is not "who you are," but "what you have accomplished" that counts.	1	2	3	4	5	6 7
48. I feel good about myself whether I succeed or fail.	1	2	3	4	5	6 7
49. I can easily put my own feelings and problems aside, and devote my complete attention to the feelings and problems of someone else.	1	2	3	4	5	6 7
50. If someone I cared about became angry with me, I would feel threatened that he (she) might leave me.	1	2	3	4	5	6 7
51. I feel uncomfortable when I am given important responsibilities.	1	2	3	4	5	6 7
52. After a fight with a friend, I must make amends as soon as possible.	1	2	3	4	5	6 7
53. I have a difficult time accepting weaknesses in myself.	1	2	3	4	5	6 7
54. It is more important that I enjoy my work than it is for me to have my work approves.	1	2	3	4	5	6 7
55. After an argument, I feel very lonely.	1	2	3	4	5	6 7
56. In my relationships with others, I am very concerned about what they can give to me.	1	2	3	4	5	6 7
57. I rarely think about my family.	1	2	3	4	5	6 7
58. Very frequently, my feelings toward someone close to me vary: there are times when I feel completely angry and other times when I feel all-loving towards that person.	1	2	3	4	5	6 7

	Strongly Disagree				Strongly Agree		
59. What I do and say has a very strong impact on those around me.	1	2	3	4	5	6	7
60. I sometimes feel that I am "special."	1	2	3	4	5	6	7
61. I grew up in an extremely close family.	1	2	3	4	5	6	7
62. I am very satisfied with myself and my accomplishments.	1	2	3	4	5	6	7
63. I want many things from someone I am close to.	1	2	3	4	5	6	7
64. I tend to be very critical of myself.	1	2	3	4	5	6	7
65. Being alone doesn't bother me at all.	1	2	3	4	5	6	7
66. I very frequently compare myself to standards or goals.	1	2	3	4	5	6	7

A number of research studies have found that if one pays close attention to one's emotions not only can one find changes in emotional states from one day to another, but from hour to hour and minute to minute. We would like you to try this experiment on yourself. Observe your feelings throughout this experiment and see if you can detect any changes in feelings.

You will be given different versions of this mood scale several times during the experiment. Your job is simply to place a vertical line at the point along each scale that best represents the extent to which you are experiencing that particular mood or feeling at that time. Although only a few points along the scale are labeled, feel free to place your line at any point along the scale. Work as rapidly as possible.

HOW MUCH OF THIS FEELING DO YOU HAVE RIGHT NOW? DO YOU FEEL:

Not at all Slightly Somewhat Moderately Very Much Extremely

Wilted _____

Safe _____

Miserable _____

Gloomy _____

Dull _____

Gay _____

Low-spirited _____

Extremely

Sad

Unwanted

Fine

Broken-hearted

Down-cast

Enthusiastic

Failure

Afflicted

Active

Strong

Tortured

Listless

Sunny

Not at all

Slightly

Somewhat

Moderately

Very Much

Extremely

Destroyed

Wretched

Broken

Light-hearted

Criticized

Grieved

Dreamy

Hopeless

Oppressed

Joyous

Weary

Droopy

MOOD SCALE B

Fill out this mood scale in the same manner as the first one. Place a vertical line at the point along the scale that best represents the extent to which you are experiencing that particular mood or feeling RIGHT NOW. DO YOU FEEL:

	Not at all	Slightly	Somewhat	Moderately	Very Much	Extremely
Downhearted	----- ----- ----- ----- ----- -----					
Lively	----- ----- ----- ----- ----- -----					
Unfeeling	----- ----- ----- ----- ----- -----					
Alone	----- ----- ----- ----- ----- -----					
Unhappy	----- ----- ----- ----- ----- -----					
Alive	----- ----- ----- ----- ----- -----					
Terrible	----- ----- ----- ----- ----- -----					
Poor	----- ----- ----- ----- ----- -----					
Forlorn	----- ----- ----- ----- ----- -----					
Alert	----- ----- ----- ----- ----- -----					
Exhausted	----- ----- ----- ----- ----- -----					

Not at all

Slightly

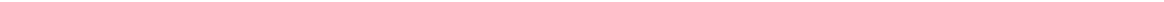
Somewhat

Moderately

Very Much

Extremely

Heartsick


Bright 

Glum

Desolate

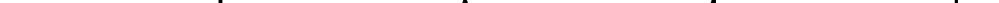
Composed

Clean

Dispirited 

Moody _____

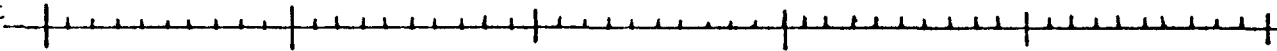
Pleased

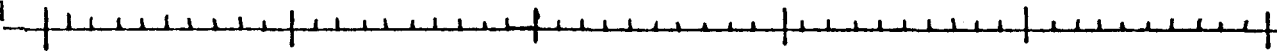
Dead 

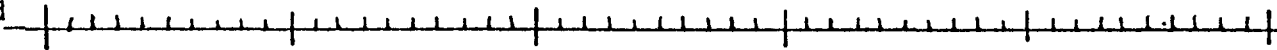
Sorrowful

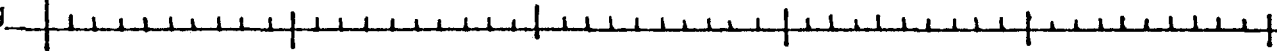
Bleak

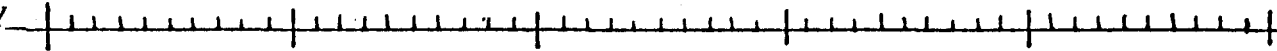
Not at all Slightly Somewhat Moderately Very Much Extremely

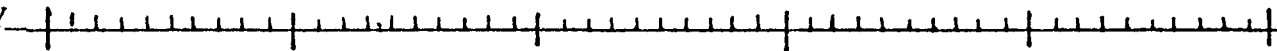
Light 

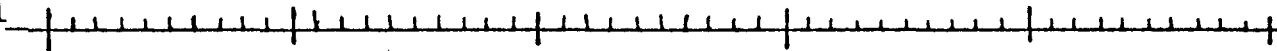
Morbid 

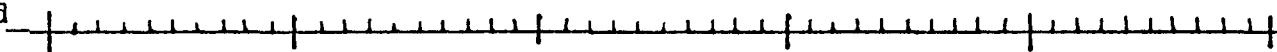
Heavy-hearted 

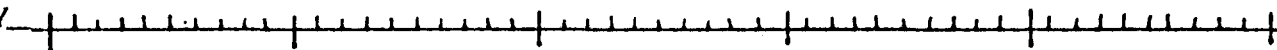
Easy-going 

Gray 

Melancholy 

Hopeful 

Mashed 

Unlucky 

MOOD SCALE C

Fill out this mood scale in the same manner as the others. How much of each of these moods and feelings do you have RIGHT NOW? DO YOU FEEL:

Not at all Slightly Somewhat Moderately Very Much Extremely

Cheerless

Animated

Blue

Lost

Dejected

Healthy

Discouraged

Bad

Despondent

Free

Dispairing

Not at all

Slightly

Somewhat

Moderately

Very Much

Extremely

Uneasy

Peaceful

Grim

Distressed

Whole

Buoyant

Tormented

Weak

Optimistic

Low

Deserted

Burdened

Not at all

Slightly

Somewhat

Moderately

Very Much

Extremely

Wonderful

Crushed

Somber

Interested

Joyless

Crestfallen

Lucky

Chained

Pessimistic

MANUAL FOR SCORING FOR DEPRESSION*

Depression Variables

- D-1: Guilt Someone in the story is described as feeling guilty, responsible for some misfortune and/or expressing some moral condemnation of the self for some action (thought or committed). Score this category also if the guilt isn't explicitly stated but it is clear that one person feels responsible for hurting someone else and suffers because of it.
- D-2: Unhappiness and Fear Someone in the story is described as feeling unhappy, weeping, sad, miserable or upset. Score also if the subject says that the scene looks gloomy or sad. Score also if someone is described as afraid, anxious, or worried.
- D-3, 4, 5: Lack of Supplies Someone in the story may react to their depression by withdrawing from the world, being unable to give to anyone or relate to people; in this case we are dealing with how the subject affects the world (S-World). On the other hand, the subject may see the world as ungiving, empty and hurtful; in this case we are dealing with how the world affects the subject (World-S). Finally, the conflict may be mostly between the person and themselves, resulting in feelings of inadequacy, failure and self-criticism; here we are dealing with the subjects' effect on themselves (S-Self). Each one of these categories may be present and each one can be scored.
- D-3: S-World One of the characters in the story cannot show any love or feelings towards the world or others. Score here expressions that: (a) the person is bored, uninterested, tired of what he is doing, (b) the person is selfish, only looks out for themselves, uses others, doesn't think of others, inconsiderate, (c) the person withdraws from others, not by leaving physically, but by being unable or unwilling to respond to other persons, (d) the person avoids gratification, is unable to enjoy or appreciate anything, and (e) the person is unable to love, unable to relate, unable to be open, runs from one person to the next.
- D-4: World-S One of the characters in the story experiences rejection or they are in an environment filled with ungiving, unloving objects. The following categories are scored: (a) the person is seen in an empty apartment, cold, poor, barren,

*The manuals for scoring of depression on the TAT used in this study are the same as those used by Elman (1970), Miller (1973), Varga (1973), and Nissenfeld (1979).

Depression Variables (cont'd)

lacking stimulation. Score here even if the room is described that way without reference to the person. Score here hopelessness and references to the room being dark. (b) Someone in the story isn't loved by someone else. Score here rejections when the feeling is clearly of one person loving the other person more. (c) Someone in the story is described as being isolated, feeling very alone in the world. Score even if there are other people around but the person feels set apart from them. Score also if the whole sense of the story is that the person has no one to turn to. (d) Score loss here if the person loses someone (or something) that meant a great deal to them. Only score death here if there is some emotional reaction to the death. Score here also one person leaving someone else where it is not seen as primarily a rejection (as in b), but where one of the people experiences a loss because of the separation. (e) Score here when one of the characters lacks valued objects--this may include being poor, just barely having enough to eat, or not having things less necessary such as a car or a coat, but wanted very much. Also score here being unable to have a child or being unable to find someone to love. (f) Score here if one person is given poor or harmful objects. Score here someone who can only have relationships with someone who hurts them, bosses them around, dominates them and/or in general is destructive to them--clearly masochistic relationships. Parents that don't love them would be scored here. Also score here descriptions of the room as poorly furnished, or the person wearing cheap clothing, clearly implying the person is given things that aren't worthwhile.

- D-5: S-Self One of the characters is described (a) as inadequate, as failing at something, not doing as well as someone else, disappointing someone else and in general having low self-esteem. Score here any statements that one person is worried about the other person's judgment or criticism or feels he won't be able to succeed or perform well. Score here also if one of the people is described as lacking worthwhile qualities such as being weak, sick, ugly, or stupid. Also score here injury, disease and death.
- D-6: Agression towards the Self (a) Score here any reference to self-destructive behavior or the person actually welcoming harm or punishment due to their guilt (such as suicide or a criminal turning themselves in). (b) Also score here references to taking drugs or getting drunk or other behavior clearly self-destructive.
- D-7: Feelings in the Test Situation Score here actual statements made by the subject about themselves which convey feelings of inadequacy. (a) Score here expression of inadequacy: "I just

Depression Variables (cont'd)

don't have much of an imagination." (b) Expressions of helplessness: "I just can't do this." (c) Disparagement of the story or the self: "That was such bull shit!" (d) Expressions conveying confusion or uncertainty: "I just can't decide what this is and it keeps bothering me." (e) Poverty of ideas--the person gives a very brief story which is merely a description of the card and they can't do anything else with it. Score also long pauses if the person appears blocked. (f) Expressions of sadness, weeping: "I can't go on--it's too sad."

How to Score for These Variables

1. Give a score of 1 for EACH STATEMENT in each story covered by any of these variables. The only exception is the statement that the subject committed suicide, which gets 2.
2. The subject of each statement is considered as the self (even though the teller of the story seemingly doesn't identify with the subject being discussed).
3. Repetitions of the same statement or idea were scored as often as they occur.
4. Give a score for depression or guilt even if they are not clearly stated, but may be clearly inferred. This is true for other categories also.
5. Score these the same as if stated positively:
 - (a) Minimization (e.g., "she is a little unhappy" is still scored D₂)
 - (b) Negation (depressive material introduced in a negative form--"She's not unhappy.")
 - (c) Avoidance (a depressive theme is drooped or skirted--"I could say he doesn't love her but . . . looking further, he really does." This would be scored D₄ (World-S - (b) - unloved).
6. The total score is the number of statements scored.

APPENDIX C

EXPERIMENT "SUB"

Information and Consent Form

There are many things that affect our moods and feelings. One important group of factors, we believe, are faint or indistinct experiences that people have. By experimentally studying this group of factors we hope to better understand what underlies the way we feel at any given time.

If you decide to participate in this study you will be asked at different points in time to indicate the degree to which you are experiencing different feelings. You will also be asked to answer some questions, perform a memory task, make up short stories, and look at flashes of light that will be words and pictures very quickly exposed. From past experience with these and similar procedures we expect no ill effect upon you. Typically, the effects of these words and pictures are very fleeting. From this study we hope to learn a great deal about our emotions which should be useful in helping people in various ways.

You do not have to participate in this study, and if you do agree to participate you can still change your mind at any time and withdraw from the study. Your decision will not be held against you in any way. This is simply a research study. All information will remain strictly confidential. Upon completion of this study you are free to ask any questions you may have about the experiment. After the data from the entire study is collected, the results of the experiment will be provided to each of you.

PLEASE READ CAREFULLY BEFORE SIGNING

I have agreed to participate in the experiment "SUB" and hereby give my consent to be a subject. The experimenter has explained the procedures of the experiment to me and has described discomforts or inconveniences I may be subjected to, if any. I understand that my responses will be kept in the strictest of confidence and anonymity. I have the option to withdraw from this study at any time and I also have the right to request that my responses not be used.

Subject's Signature

APPENDIX D

Social Security Number _____ Age _____
Year at School _____ Marital Status _____ Children _____

Living Arrangements

Live at home _____ Other members of household _____

Do you plan to move to an apartment or dorm? _____
If so, when? _____

Live in dorm _____ Live in apartment _____

If living in apartment or dorm, when did you
leave home? _____

Family

How old is your father? _____ Occupation _____
If he is dead, how old were you when he died? _____

How old is your mother? _____ Occupation _____
If she is dead, how old were you when she died? _____

Are your parents living together? _____
If not, when did they separate? _____

Siblings (sex and ages) _____

Describe your father (use reverse side if needed)

Describe your mother (use reverse side if needed)

APPENDIX E

STORY FOR STORY RECALL

Following their first year at school, four friends were discussing how their relationship with their mother affected the past year. Elaine went to college in California and had a great year. She got all A's and made many good friends. She felt that her mother was very supportive of her new independence which gave her the encouragement she needed. Sally also went far away to school, but she did quite poorly. She felt pretty depressed the whole year and was constantly worried about her mother, who seemed very hurt by her decision to be that far away from home. She is thinking of moving back home since her mother has been feeling pretty badly lately. Nancy lived at home during the past year and attended a local university. Staying at home made her mother and her closer than ever. They did many things together and they both were quite happy. Her mother was always there when she needed her which helped quite a bit. Alice went East to college, but because of pressure from her mother, moved back home and attended a community college for the second semester. Leaving her first school and new friends made her very angry and upset. Since being home, she has fought often with her mother and doesn't know how much longer she can stay at home.

APPENDIX F

Discrimination Task Instructions

"Okay, the next thing we're going to do is a discrimination task. I have two sets of cards here and I want to see whether you can tell them apart when I flash them on at the same speed I did during the experiment. I am going to show you four pairs of exposures of one set of slides, which will be followed by four pairs of exposures of either the same set or a different set. After the second set of four exposures and after each set after that I want you to tell me whether you think the set you just saw was the same or different than the set right before it. You will be comparing each set of exposures to the set you saw right before it. Okay, now if you would put your eyes up against the viewer, we can get started. During this task, please don't look up; keep your eyes focused into the machine. Here's four exposures of the first set (exposures). Now I'm going to show you four more exposures of either the same or a different set. Just say 'same' or 'different' to indicate what you think (exposure). Now for another four exposures and tell me if they are the same as or different than the one you just saw (expsoure)."

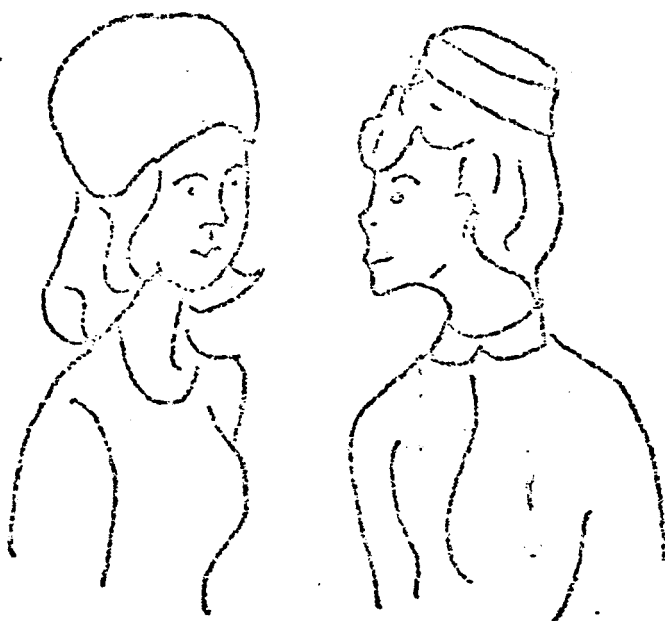
Ten trials were given using the LEAVING MOM IS WRONG and PEOPLE ARE WALKING pairs. The double-blind nature of the study was maintained by having the examiner utilize a separate, though identical set of stimuli cards for this task.

After each series, the stimuli were taken out of the tachistoscope and either the same or different stimuli inserted, so that the subject would not be cued by sounds.

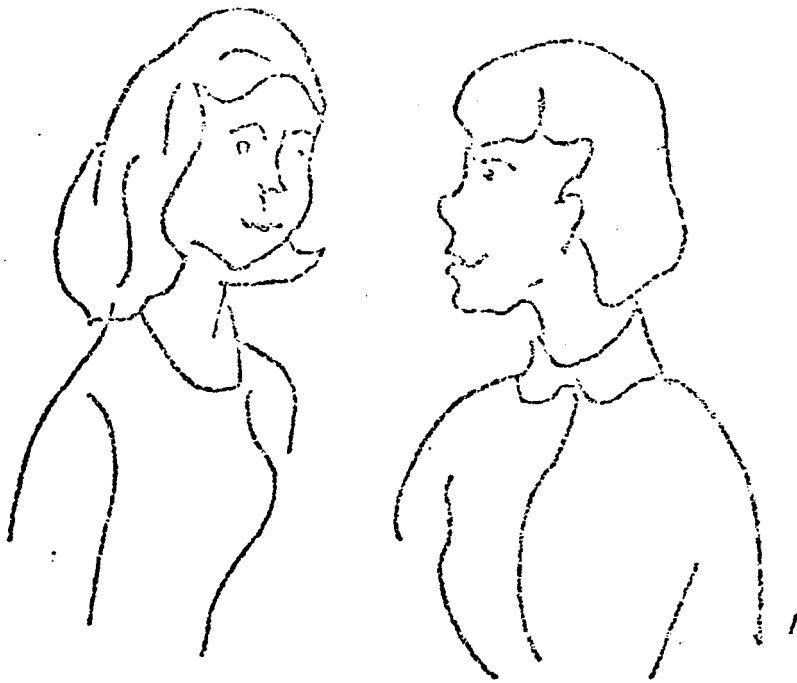
The order of trials was as follows:

- 1 Same
- 2 Different
- 3 Different
- 4 Same
- 5 Same
- 6 Same
- 7 Different
- 8 Different
- 9 Same
- 10 Different

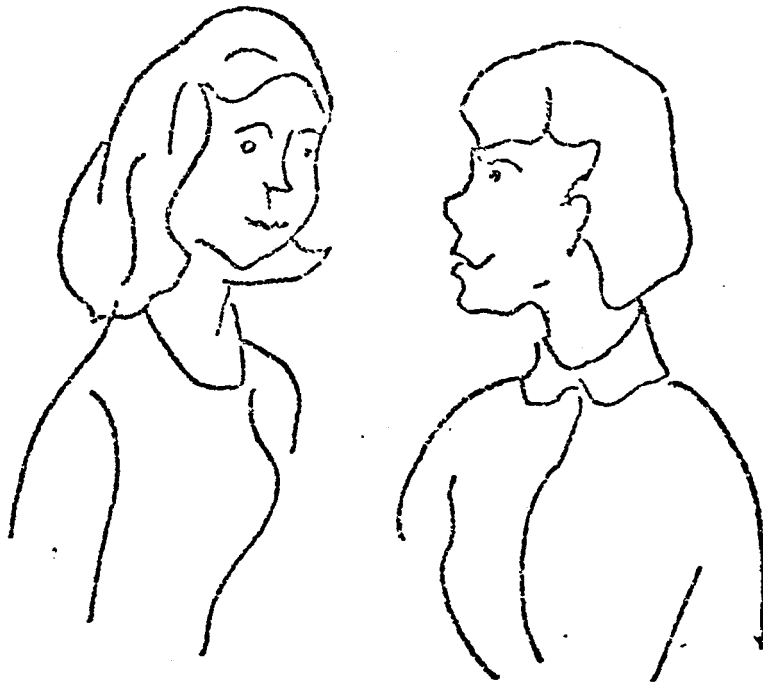
APPENDIX G



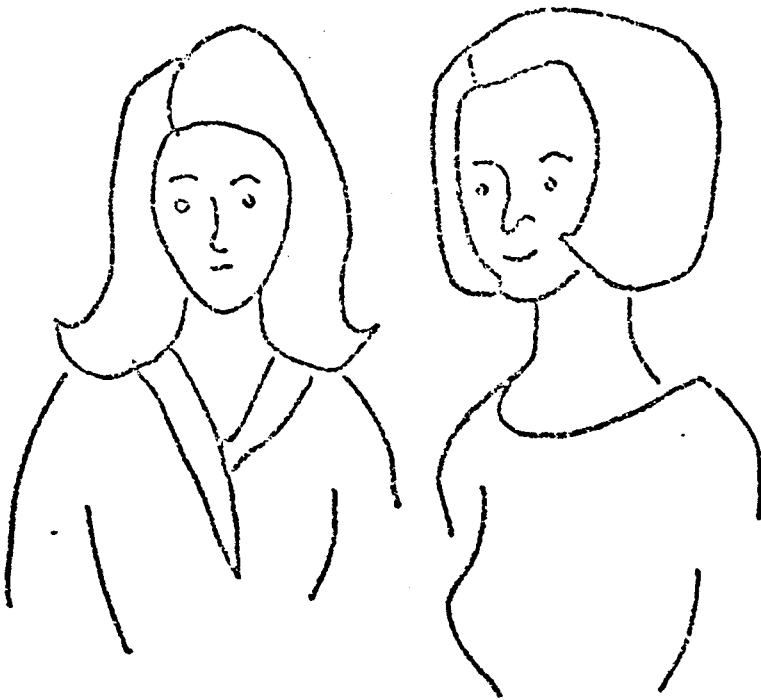
PEOPLE ARE
STANDING



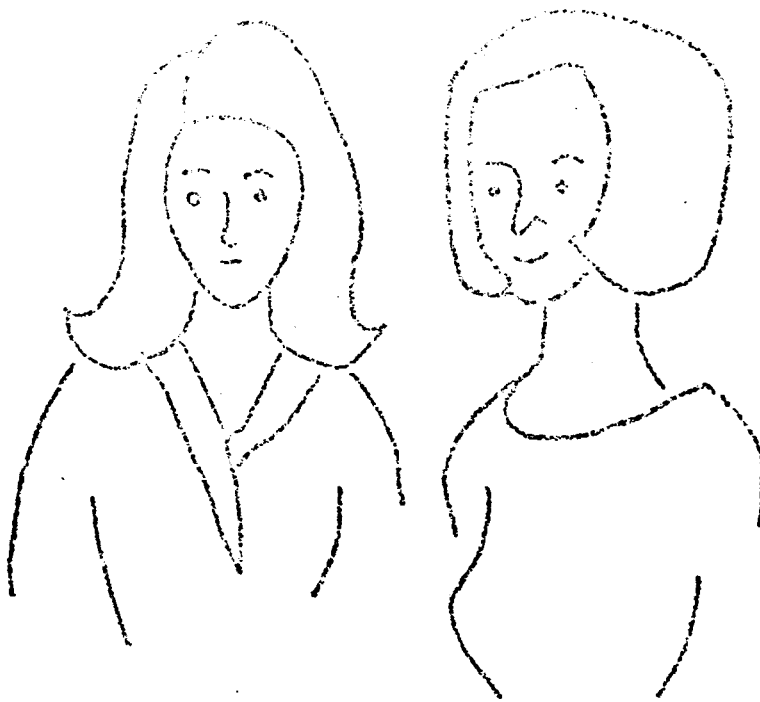
PEOPLE ARE
TALKING



PEOPLE ARE
WALKING



PEOPLE ARE
LOOKING



MOMMY AND I
ARE TWO



I AM STANDING
WRONG



I AM LOSING
MOMMY



LEAVING MOM
IS WRONG

APPENDIX H

Ethical Considerations in the Use of Subliminal
Psychodynamic Activation

The findings reported in this and other studies that a subliminal stimulus can bring about a change in behavior and/or mood as a result of activating unconscious processes obviously raised important ethical issues. Although the ethical concerns are greater for those investigations aimed at increasing pathology, certainly pathology reduction studies also have their ethical considerations despite their seemingly beneficial nature. Silverman (1978b) is quite aware of the ethical questions raised in doing subliminal research, and thus, has written an extensive report on ethical guidelines in performing this type of investigation.

In that the duration of the pathology intensification depends mainly on the length of time the stimulus is present, "laboratory-effect studies" (which involve a single session) seem to be less risky than "real-life effect" studies (which involve repeated exposure to the stimulus over a period of time). Silverman (1978b) reported that in laboratory-effect studies, "with but rare exceptions . . . the effects on subjects are slight, without subjective discomfort, and very fleeting." Silverman found that the subjects' pathology level returns to its baseline within several minutes following subliminal stimulation. There were, however, a few instances reported by Silverman when the laboratory-effect lasted a considerable length of time, and thus, demands "ethical scrutiny and clinical skill."

Although the possibility of risk to any subject appears unlikely, several safeguards are necessary in performing subliminal research. Silverman (1978b) outlined these in detail, but briefly they involve the following:

- 1) Informed consent with detailed information concerning the experiment;
- 2) Encouragement of subjects to ask questions and voice concerns about the experiment;
- 3) An extensive debriefing following the study in which the subliminal stimuli are revealed to the subjects as well as the rationale for their use;
- 4) An invitation to the subject to contact the experimenter to discuss any lingering negative impact he thinks the stimuli may have had.

APPROVAL SHEET

The dissertation submitted by Richard B. Dauber has been read and approved by the following committee:

Dr. Mark S. Mayzner, Director
Professor, Psychology, Loyola

Dr. Alan S. DeWolfe
Professor, Psychology, Loyola

Dr. Eugene Kennedy
Professor, Psychology, Loyola

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree Doctor of Philosophy

OCT 15, 1980
Date

Mark S. Mayzner
Director's Signature